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## ORIGINAL ARTICLES

### THE TRUTH, THE WHOLE TRUTH AND NOTHING BUT THE TRUTH\*

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Before he begins his testimony, the doctor, with his right hand uplifted to heaven, and with the Creator of the Universe and all the world for witness, swears to tell the truth, the whole truth, and nothing but the truth, so help me, God.

Sooner or later, having finished or been finished, the doctor steps down.

He is willing to swear now that he tried to tell the truth but is not so sure that what he uttered was the truth he tried to tell. And as for telling nothing but the truth, he is not so sure but that he told anything but the truth. And as for telling the whole truth, were it not to him so tragic, it would be to laugh.

The plaintiff nor the defendant nor the court—the honorable judge presiding—nor the intelligent jury, asked for the whole truth.

All that either of the contendants wanted were certain statements that would help to develop his theory of attack or defense.

It is desired that the doctor's testimony shall be shaped to fit.

The doctor realizes that he has made a sorry spectacle. He has failed as an exponent of the science of medicine. He has stumbled. He has admitted that he didn't know. He has been silenced when he attempted to utter a little more of the truth.

If by good fortune, he escapes some of the pitfalls dug for him, he gets the questionable compliment that he was a clever liar.

In other words, he knows he has been in a quarrel—a melee—a fight. A fight in which no mercy is shown, and he is carrying wounds he is not proud of.

How different the pictures the text books of forensic medicine paint of the dignified, honored, medical witness, so full of truth and information, whose dictum shall be oracular and final.

Let us enter into the court room and listen to the way in which the doctor is exploited to develop or suppress facts, by which blinded justice speaks.

On direct examination the doctor may be asked questions so few that he thinks the cause ill described; or, he may be asked more and pertinent questions that seem to make the cause more clear.

Then comes the cross examination. It is then demanded of the doctor that he shall modify his declaration by admitting that there are many conditions other than those he named which might result in the same way; or that this, that or the other thing might have been the cause. And it is demanded that he admit that this result or that result or the other may possibly follow rather than the one to which he has testified.

In short, it is demanded of him that he shall reverse his statements.

Now the doctor may be remembering the precept of Hippocrates that "experience is fallacious and judgment difficult." For the human animal is of such complicated, inexplicable makeup and causes may come from such long distances, and results are so uncertain, and often of surprising

\*Inaugural Address, Kalamazoo Academy of Medicine, December 21, 1926.

contrariness that the doctor must truthfully admit, speaking in the abstract, the possibility of many modifications and exceptions. And he must rely on the intelligence of the jury to place the same significance on such admissions as he himself.

But when the admission and modifications approach to the denial of his original declaration, and general admissions and modifications are made to apply to the concrete case, the case at hand, the doctor must explain how they do not affect the integrity of his original declaration. This the doctor has a right to do. To be sure, the attorney who represents the opposite side will try to prevent him so doing, as I have, myself, more than once been, by his per-emptorily saying, "Doctor, I don't care to have you give a lecture." And the danger is that the doctor will surrender his right.

But, doctor friends, of the central medical fact, the one on which the case hinges, the great truth, the doctor shall not surrender.

It is a very serious matter.

Your word, your steadfastness, may be the only defense of the wages of the poor, or the liberty of the innocent. You must defend this truth with every resource that your education and experience have given you. You must defend it with every wit of grey brain and courage you have. You must defend it for the honor of medicine; for the love of your home; for the memory of your father and mother; for your son whom you loved more than father ever loved son before, and plead this cause as he pleads now for you forevermore before the Great White Throne.

At any moment during the cross examination, the attorney may digress to spring such questions as, "Doctor, will you please explain specific gravity?" or, "Doctor, please describe an anomaly of the shoulder joint?" or, "Doctor, will you please tell us what square root is?" or, "Doctor, where is the cardiac sphincter?" or, "Doctor, can you tell the amniotic fluid by the smell?" "Yes." "Then, Doctor, will you please explain that smell to the jury.\*

\* NOTE: The answer was:

"The smell of the amniotic fluid like any other smell is more easily recognized than described. But I believe a fair description is this:

A farmer in hay making time goes out in the morning and mows down a field of grass.

The sun is shining and the grass begins to cure. Suddenly a shower falls and thoroughly wets the new mown hay-in-the-making. As quickly the rain stops and the sun pours down again. And there rises in a mist a peculiar odor, with the slightest suggestion of must, not unpleasant but characteristic and once smelled can never be forgotten.

This smell in my opinion bears a striking resemblance to that of the amniotic fluid."

Testimony in defense: State of Indiana vs Dr. Arthur Edmonds: Manslaughter.

Again the doctor is often at a complete loss to know what is wanted by the form in which the question is put. I heard the question asked of one of the most learned men of the Academy, referring to a fracture of the skull, "Doctor, was it a severe fracture?" The doctor answered, "I don't know what you mean." The examiner said, "I will ask the question again, doctor, and demand an answer." The doctor looked puzzled enough, and replied, "I haven't the slightest idea what you mean." Now if he had asked the doctor to describe the fracture, or asked, "Was it a linear fracture?" or a "Stellate" or a "depressed" or a "complete" fracture, the answer would have been very easy for the doctor. I imagine the intelligent jury believed the doctor either hedging or unwilling to tell the true, and all the while, the doctor was absolutely anatomically correct.

Some learned legal gentlemen have an irrepressible desire to shine in pathology. He demands that you accept his invention. In a recent action the learned cross examiner demanded of me, "Is it not a fact, doctor, that all cases of heart disease are caused by a prolonged, continued infection?" I answered, "No." "Do you mean to make oath, doctor, that all cases of heart disease are not caused by a slowly acting long continued infection?" "No," I said, "Many cases of heart disease are caused by very brief infection, such as in influenza, scarlet fever, diphtheria, or many a boy or man suffers an acute dilation of the heart, sometimes fatal, from a brief extraordinary muscular exertion. And there is the athletic heart that winds up in a fatal interstitial nephritis. We quarreled quite a while over it, and I am not informed which word the intelligent jury believed.

Sometimes the learned examiner invents physiology. In an infanticide case, in discussing the moment when the newly born takes on a separate blood circulation. The prosecuting attorney who was a huge man with a taurine voice, and had a stack of obstetrical books as high as the table; some of them atlases with vividly colored plates lying open before him, exhibiting the fazes of partuition; wherever in the world he got them; the jury could plainly see, he was thoroughly prepared to force truth from an unwilling witness. "Is it not a fact, doctor, that at the instant of birth, the blood rushes down through the cord from the mother, and rushes upward from the child, the two streams collide, the blood clots, and stops the circulation?"

I answered, "No. The blood from the mother comes down through one vein and upward from the child through two arteries, therefore, there can be no collision." "Just so, doctor," he triumphantly shouted, exhibiting to the jury a colored picture of the birth cord, that looked like the tow line of an old whaler, and covered with barnacles. "The course of the blood is reversed, what went down, goes up, and what went up goes down. They meet in the twists and clot, don't they, doctor?" I am almost sure the jury saw it in his way.

Sometimes the learned cross examiner without purpose that you can make out, delights in hurrying the medical witness. In a case where a man dropped dead, and his widow sought compensation, I having viewed the remains, it was demanded of me. "Doctor, what did this man die of?" "I don't know. "Don't you have any idea what he died of?" "No sir." "Haven't you any thing to say about what he might have died of?" I replied that I was pretty sure that he didn't die of scarlet fever or small-pox, but what he did die of, I did not know. "Did he die of heart disease?" "I don't know." "Did he have heart disease before he died?" "I don't know." "Was his heart too big?" "I don't know." "Did he have valvular disease of the heart?" "I don't know." "Do you know anything at all about his heart?" "Yes, I do." "Well, doctor, if you know any thing at all about his heart, will you please tell the jury?" I said, "It stopped."

Once in a while the gloom is further lightened. A friend of mine was being cross examined where the controversy hinged upon an injury to the chest. The learned examiner had read in Gray's anatomy that there are on each side, seven true and five false ribs, two of the latter floaters. He got his terms a little mixed and he put the question. "Doctor, how many permanent ribs are there?" The doctor was startled and confused, but when he got himself together, he returned an equally learned answer, "Search me, I don't know."

In an action in which a wife was endeavoring to recover damages from a saloon keeper who, she alleged had sold her husband the liquor which caused him to attack her, breaking the bone over one eye and kicking her in the bowels, causing her to suffer pelvic abscess and much misery. My negative answers rather exasperated the learned examiner and he went at me pretty hard. The words peritonitis and

pregnancy had been used a number of times during the trial. The learned attorney got them hashed in his mind, and he said, "doctor, in your examination of this case, did you find symptoms of pregnitis?" My reply was, "No sir." He said, "Could not a blow over the eye sufficient to break the bone and kick in the abdomen, sufficient to cause abscess cause pregnitis?" I said, "No." Then he comes back triumphantly and demands, "But, doctor, if in your examination, you had found pregnitis and you did not think that the blow on the eye or the kick in the abdomen caused it, what would you say was the cause?" I replied, "I give it up."

Years ago, I heard a little circle of the elder lawyers relating with what seemed to me, an unreasonable amount of mirth, their exploits in cross examining and by clever pit falls, how they had ruined the testimony and humiliated and made the butt of ridicule a number of our older doctors. In my mind I looked forward to the time and am still anticipating when I shall furnish cause for equal hilarity and am not so sure that I have not already done so.

Other means having failed to break the witness, there remain two others; the best of all. The first is by a series of offensive and aggressive questions to so embarrass and anger the medical witness that he loses his head. Such an episode occurred in our circuit court on an important litigation for damages arising from a child having been bitten by a dog. The plaintiff's attorney stated that to win, he must crush the testimony of the principal medical witness of the defense. And by a series of questions pertaining to nothing in the case and finally becoming of a personal character, the doctor became so unreasonably angry that he turned his back on his tormentor, and refused to answer questions. And that was just what the lawyer set out to do. And he fired volleys of unanswered questions at the medical witness, *aposteriori*.

The other method is by piling blandishments on the witness till he is beguiled off his guard. The best example of such in my experience, was that of the examination of Doctor X, by Clarence Darrow in the Loeb-Leopold case. May I be allowed a word of description of the court scene.

One might suppose from newspaper accounts and the atrocity of the crime that the defense cowered in a corner. The fact is the very opposite. The state's attorney and his staff huddled in a small space at



the judges left. The defense had the whole right, and center. And while the prosecution seemed subdued and unaggressive, Clarence Darrow like the old lion that he is, raged over and dominated his ample spaces. The air of the court room was sympathy with the killers. Babe sat with a disengaged, bored air. Dickie, a handsome young man, was flirting with his eyes with any pretty face within his vision. They were at ease by reason of what ever arrangement had been made in their behalf.

I tried to read in his face, what the verdict of Judge Caverly would be. It is a handsome, gentle, delicate face. All its hues have been brought out by the art of the masseur. Down the middle of his forehead from under his black skull cap, he has trained a single lock of hair, a la Disraeli, oiled and fashioned to a fresh and more fetching curl at the opening of each session. It is the face of an aesthete a dilettant, a dreamer. His delicate, beautiful hands show the highest art of the manicurist. I said: Can those sensitive, tapering, lily perfumed fingers with those polished nails, tie a noose of rough, prickly sisal or of hemp greased with vulgar lard.

Doctor X, eminent specialist, author and teacher of medical jurisprudence for two score years, goes to the stand.

His face is flushed and his eyes dilated, knowing he is in for the cross examination of his life. Mr. Darrow comes forward in a reassuring, slouchy manner, and leans carelessly over the railing, a few feet from Dr. X. "I have known you for a long time, Dr. X, and I acknowledge your great reputation as an expert. You and I have served together in cases heretofore; and, if at any moment in my zeal in behalf of my clients, I pass the bounds of courtesy, I now ask your pardon. I hold you in the highest esteem and confidence. My appreciation of your integrity and ability is so high, that had you not been retained by the state, I would have employed you myself."

There sat Dr. X, and he sat and took that. It is easy to the one who looks on to criticize the one who is undergoing the ordeal, but I said to myself, "How can you stand for that? In God's name, Dr. X, why don't you jump to your feet, shake your finger in his face, and say, 'Mr. Darrow, I will not accept the insult. My testimony is not for sale. And all the gold of your Loeb's and Leopold's can not buy it.'" But Dr. X sat back in his chair in

what might appear acquiescent silence. And I felt thereby, he lost half of his authority. Then Mr. Darrow shoved aside the jar of honey and took off his gloves and holding up a copy of X and Y's work on Mental Disease and Forensic Medicine, demanded, "Did you approach the defendants in your examination as your book states you should, 'as a physician?'" Dr. X faltered a reply. Twice Mr. Darrow repeated the question, each time with growing indignation. Dr. X then responded, that that statement was in Dr. Y's part of the book, and he himself had not read it. Mr. Darrow shot back, "Then, Dr. X, I have the advantage over you. I have read your book."

I am reciting this only to illustrate the success of the blandishment method, and find therein, a little comfort for the failure of the modest and over truthful doctor from the provinces.

Kind friends, if I have not already said it, I want to declare that the doctor on the witness stand is in a fight. If he sustains his contentions, all well and good, but if not, when he leaves the chair, he can look back over his shoulder, and see his hide hanging on the fence. Do not understand that I recommend that the medical witness should appear churlish or belligerent. The best medical testimony I ever heard was given by Dr. Edward Ames, the sole witness for the defense, who for two sessions of the court, with an inexhaustible good nature, with a witticism or a smile, parried the thrusts of a most aggressive and forceful examiner who did not forbear the insult.

It is exploited by the press and accepted by some of the courts that at the present moment, medical testimony stands at nadir. Dr. Joseph Collins, an alienist and an expert states, "Expert medical testimony is held in lower esteem after each notorious trial. It can not go much further before it becomes valueless.

I am persuaded that this author takes himself too seriously and that whatever the public may think and however convenient it may be for courts to attribute their failures to the medical witness, I believe that trial lawyers have none the less confidence in us than in any other class of witnesses.

It would be a very wicked and dishonorable thing for a doctor, for any purpose, to misstate in the slightest degree, any fact in the science of medicine. But in the matter of an opinion, as for instance, as to the sanity or insanity of an accused,



or as to whether a testator was at any time competent to make a will, or in estimating the time of recovery from atromatism, a doctor should have full privilege of his opinion. Why should doctors be held venal for differing in opinion on a complicated situation, when the highest court in our land, the great supreme court, which has had eight years to study the Volstead Act, a law drawn in plain and simple language, differs five to four in deciding whether that act is constitutional when it restricts the physician in the use of a medicine of ancient and high repute.

Let us as our legal brothers put it, assume for the moment that much of the reproach cast upon medical testimony is deserved. Shall we not, then, study out new concepts, and organize more luminous and effective ways to preserve and protect and develop forensic medicine to the end that it shall stand in line with the wonderful growth of other forces of that science and that art to which we devote for evermore, our labor, our life and our sacred honor.

### THERAPEUTICS IN PRE-MEDICAL EDUCATION

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The great tidal wave of medical progress which swept over the world from 1885 to 1905 washed away the crust of empirical medicine and left in its stead a biological science from which modern bacteriology, immunology, preventive medicine, pathology, biochemistry, biophysics, and a changed medical curriculum have arisen. With the event of the mass of new thought and fact there had to occur reorganization of the fundamental ideas in practically every branch of medicine and with this change came a multitude of new ideas which had to be passed on to medical students.

In the late nineties and during the dawn of the twentieth century, medical education was a whirlpool of conflicting ideas. Medicine was fast becoming an endurance contest with so much to be given in four short years that only the surface could be scratched. The host of new facts, especially in the branches of bacteriology, biochemistry, and physics made a fundamental preparation in those sciences necessary. General chemistry, organic chemistry, physics, zoology were all taught in

the medical school. Crowding of courses became so great that the medical curriculum had either to be lengthened or a year or more of literary work required. Finally there arose from the conflict a combined literary and medical course of six or seven years.

Again the waters seem to be rising and one sees in written manifestos and hears in spoken words from medical educators, ideas of changes with a tendency to revert back to a more classical foundation for medical students enabling them not only to be physicians, competent in their field, but to be truly men of education. It is advocated as well that the classical foundation will prepare them to better understand their medical profession. Criticism has arisen over the cut and dried curriculum all students must pursue before entering medicine, leaving them little time for the study of the humanities. One hears also objections that medical students during their literary training delve into courses bordering on popular interest and fail to gain the fundamentals. All of these criticisms make one wonder whether we are trying to create a new type of medical student with an education comparable to the scholar of the academic courses, in addition to his training as a physician; whether we are trying to train scientists in medicine rather than able practitioners; or whether we are attempting to exhume and reincarnate the student of sixty years ago.

Educational unrest is nothing new even in the brief life of American universities. President Wayland, in his report to the Corporation of Brown University in 1850, states: "He (the student) works wearily. He studies only to accomplish a task. He can read nothing but text books, and he turns mechanically from one to the other. He learns to cram for a recitation or for an examination, and when this last is over, his work is done and he is willing to forget all that he has studied."<sup>1</sup>

To remedy this situation, Wayland proposed drastic measures. The system of adjusting collegiate study to a fixed term of four years should be abandoned. The time allotted to each particular course should be determined by the nature of the course. Each student should be allowed, as far as practicable, to study "what he chose, all that he chose, and nothing but what he chose." No student should be under any obligation to proceed to a degree and every student should be entitled to a certificate of such proficiency as he might

have made in each course pursued. The withdrawal of allegiance to the German system and an inclination toward the Oxford and Cambridge plan is seen in Wayland's method of correction.<sup>2</sup>

Some of his ideas were adopted in spirit and exist today, but most of them have gone by the wayside. It is true in most medical schools that, at present, subjects are given time in proportion to their value and difficulty. It is also a fact that more and more elective courses are offered medical students, and Harvard has for several years given but one comprehensive examination at the end of the fourth year to cover the students' entire clinical work. The trend at present seems to be in the direction of more elective courses, shorter hours for the less important subjects, and comprehensive examinations.

If one considers the medical student of sixty years ago as the acme of perfection because he lived in the age of classical training, one side-steps the all important fact that medical students of that period were exceptional if their education was even equivalent to our present high school education. It was the unusual student who studied the classics before entering medicine. In an article published by George D. Chaffee telling of the "early days at Michigan," he states: "The law and medical students were not, as a rule, college educated and their clothes, manner, and often their grammar shocked the delicate sensibilities of their more fortunate literati. It jarred some of them to hear 'I seed', 'I knowed', etc."<sup>3</sup>

That this fact was evident to President Tappan, can be seen in his "University Education": "We ought to make apparent the difference between a mere professional and technical education, and that large and generous culture which brings out the whole man and commits him to actual life with the capacity of estimating from the highest points of view all the knowledges and agencies which enter into the well being and progress of society. That is not really the most practical education which leads men soonest and most directly to practice, but that which fits them best for practice."<sup>4</sup>

Unquestionably one purpose of a State University is to train men to become able practitioners so that they may go out again into the state and be a benefit to the people. The state institution should not consider it a duty to place above the training of practitioners the birth of research workers. Furthermore, with education a

popular profession one can easily discern that talent cannot be elicited where talent does not exist.

Progress, whether it be in medicine or in any other form of human endeavor, is not a slowly advancing thing. Instead it moves by stops and starts, by trial and error. There is no doubt to any close student of medical education that the introduction of the two pre-medical years has proven a great benefit to the training of medical men. The pre-medical curriculum was drawn up some 15 years ago in a more or less arbitrary form by a group of men interested in achieving an ideal. They knew their plan was not flawless and they probably realized their goal would not be accomplished during their lifetime. However, they had foresight enough to know that once progress was begun in the direction of more thorough training, it would slowly continue. The requirements still remain two years of Latin, which can be taken in high school, six hours of English, twelve hours of Chemistry, eight hours of Physics, eight hours of Biology, and twelve to sixteen hours of a modern language, with a total of sixty hours demanded for entrance. This left twelve hours of elective work in any other field in which the student was interested.

This plan not only allowed the student opportunity to obtain the superficial scrapings of the literary field, but also made it possible for him to take some of the fundamental courses which had hitherto been given in the medical school. Criticisms which have arisen do not apply so much to the original plan but to the method in which the courses are given and the lack of benefit derived by the students from many of them.

Warthin strikes the keynote when he says that the pre-medical student is thrown in with large classes of literary students where courses are "more or less popular and superficial, containing much duplicated matter of elementary physiology and morphology, and a smattering of heredity, evolution, genitics, and vitamins . . . . They do not give the medical student that broad conception of the unity of all life, the broader view of the evolution of plant and animal life and of man in particular."<sup>5</sup>

Physics is often given to medical students along with engineering students with emphasis placed upon stress and strain and little said concerning light, heat, radio activity, and electricity. Often the modern language courses do not in-



clude conversational and scientific courses available to medical students. A course in reading current medical periodicals in either French or German is not existant, as far as I know, and yet think of the benefit it would have! Few pre-medical students take sociology, enthnology, art, or music. Anthropology is rarely studied and yet the whole medical science is based on the history of man! Physicians, too, are told they must consider themselves leaders in their community; they must preside at banquets, and be active in their societies, yet it is the rare doctor who has had even a rudimentary training in public speaking!

It has been said that a majority of men entering upon the study of medicine have had that desire since their earliest recollection. When they enter college they are confronted with certain requirements which they must pass before entering their chosen field. No committee meets them and points out certain studies which may benefit them as they go along. They may peruse their catalogue for electives and come upon such terms as Sociology 21, but they are unaware such a course is Anthropology. Because they early commit themselves to medicine, few instructors try to interest them in other subjects. They even pass through the entire two years of pre-medical work without so much as a trace of pure medical science to interest them.

It is a much mooted question whether the pre-medical education should be only in the humanities or should act as a period during which the foundation is laid for the work to come. Would it not be better to strike a happy medium so that both the humanities and the fundamentals are gained? Would not a committee acting as advisors to all pre-medical students be a decided help in planning courses for them? Let this group keep in touch with pre-medical students and direct them. Perhaps by supervision, such a body might be able to direct the misfits, who invariably come into medicine, along other more suitable channels before their mistake is serious.

Cannot some of the literary courses be rearranged so that they have a definite appeal and a decided value to pre-medical students? Instigate such studies as biophysics, embryology, the reading of periodicals in a modern language, and stress enthnology, anthropology, and public speaking. Remove the non-essential courses such as qualitative analysis or incorporate it as part of general chemistry,

and allow this time for other subjects. Bring forward into the pre-medical years perhaps bacteriology and the history of medicine. In other words, revise and combine the pre-medical and early medical education.

At the University of Michigan, the medical faculty meets periodically with President Little and the literary faculty for such a purpose. The future may present a more useful and beneficial program.

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2. Ibid: Pages 51-52.
3. Chaffee, George D.: Michigan History Magazine. Vol. XI, No. 1, page 26, 1927.
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5. Warthin: What Should a Pre-Medical Student Study? Annals of Clinical Medicine. Vol. IV, No. 7, 1926.

### MICHIGAN ONE HUNDRED YEARS AGO

(Continued from April Issue)

The letters of a Doctor, locating in Pontiac, to his relatives in New York.

**EDITOR'S NOTE:** *The following letters, written one hundred years ago, furnish most interesting incidents of medical practice and pioneer days. We feel certain that our members will gain pleasure in reading them. We are indebted to Dr. B. R. Corbus for making them available.—Editor.*

Pontiac, February 19, 1831.

Dear Brother:

I am very much pleased to have an opportunity of answering a letter from you at this time, although I had almost made up my mind that you had concluded a correspondence rather a waste of time than otherwise. I regret that I should find occasion to reprove at this time. The two last papers which I received were indorsed "The postmaster will look well to the infraction of the U. S. A. Laws"—The postmaster has also received a letter instructing him to open all papers which are not left open at one end of the envelope, as the law directs, and instancing those particularly directed to me. "A word to the wise, etc."

I am rejoiced to hear that father's health is again restored and hope that you will, as far as possible, prevent his exposure to cold and fatigue, which have generally occasioned his sickness.

#### RELIGION

The revival which he speaks of has surprised me not a little; perhaps my residence in Pontiac has had an influence over me and has induced me to attach less importance to the subject than it really deserves. Be it as it may we are but little troubled in that way here; and the people appear to consider that a religious excitement is injurious to the happiness of community (and the great majority to) the individual.

You must have perceived by the papers that I have at length affected a dissolution with Dr. R. It was brought about with considerable difficulty. The course which I pursued was the one I mentioned in my letter of the 1st. Inst.



My business has been very good for some time past. In fact, too good for my own comfort for the last three weeks. Pleurisy and peripneumony Notha has prevailed extensively and there has been a good many fatal cases, mostly amongst elderly people.

The sleighing is superb—weather middling cold—has been very severe—business of all kinds lively.

#### POLITICS AGAIN

Politics run higher here than in N. Y. The people all want offices and every one is astonished at the presumption of his neighbor in daring to presume to wish and ASK as much as he demands for himself. There are about a dozen candidates for the council, not one of whom is fit to serve in as a menial to the most inferior of a genuine republican council.

10 bells. I have a call to visit one of the surveyors at Grand Blanc and must start immediately to reach there by daylight. The case is similar to most of the others—pleuritis. I must therefor defer writing more until the next opportunity. I should not forward this unless it was necessary to avoid difficulty with the postoffice and to satisfy you that I was well.

Recollect me to all and I remain.

Yours, etc.,

D. L. Porter.

W. P. Porter.

P. S.—If you can get a set of Accouching instruments conveniently I should like to have you forward them by Uncle Lionel. I would have given all I was worth recently for a set, but they are not to be had on any terms here except miserable forceps. Not a physician in the territory that I know of owns a set like father's. I believe if I had had them Monday I could have saved a fine woman. The Vectis and ——— would have been INFALLIBLE.

D. L. P.

Pontiac, 20th March, 1831.

Dear Brother:

I received a letter from Abby last night informing me that you had not received any letters from me for several weeks. The last one I wrote I was obliged to cut short in consequence of a call to start immediately for Flint River. I had the pleasure of riding all night and at daybreak met another messenger sent express from a trading post on Saginaw Bay 80 miles from the Flint to see a poor devil who took the liberty to die an hour after I got there—of course, my hopes of a fee died with him as he left no property except some Indian goods which the natives kindly appropriated to their own use in consideration of many kindnesses shown him.

#### DENTISTRY

The old chief made me a present of an elegant pair of moccasins for pulling out some dozen teeth for his tribe.

I have not made up my mind fully that I will not attend to any more of these distant calls. You may judge of the generality of them by a history of this—I had to follow an Indian trail through one continued forest, to lay out two nights in the cold, the messenger nor myself being provided with fire works, or blankets and no provision but what we got at the Flint, nor the possibility of obtaining any until we reached the end of our route. I was gone five days and lost my horse by the Yellow Water (so called by the farrier) but as much in my opinion from fatigue

and want of food. He was not worth much, yet about home he would have answered my purpose as well as any—I have since bought one, a fac simile of father's pacer in colour, build, and gait, though one-half smaller—I paid and AM to PAY seventy dollars.

Business is good and has been during the winter, but I can get little or no pay. In June I shall sue every man that owes me as I must either pursue that course or ruin my credits as I am not able to fulfill my engagements. The accounts are due but I cannot wait forever to collect them, and though there are several hundred dollars against good men I cannot raise one-half enough to keep myself and horse. Should this state of things continue much longer I shall next fall give up the practice and after visiting Waterford, go south. I can do at least as well in any of the large towns on the Mississippi and the expenses of livery be no greater than they are here. For some time past it has cost me \$4.00 a week for myself and horse, besides incidental expenses. Hay is \$14.00 a ton; oats, 4/5. Wheat, 8/—; Rye, 6/—; Corn, 8/—; Flour, \$6.50. Produce must fall when navigation opens as we can then obtain supplies from Ohio. The greatest scarcity prevails at this time and the demand is incessant from the emigrants. The surplus wheat of this county was at least 8,000 to 10,000 bushels last harvest, and now we have to depend on Detroit for bread stuff. Another month will remedy the evil.

Politics and cold water societies are the mania of the day. I do not, nor will I unite with either, as the object is not a *radical reform*, but rather to produce an *effect*. Some of the most infamous characters are the prime movers of the latter and it is united with Anti-Masonry. The leaders boldly declare that it is to affect particular objects, as breaking down the Pontiac club (alias Regency) and to place their own tools in power. Some young men got up a meeting in this place as you will see by the Chronicle. I did not unite with them as they had foolishly proclaimed their objects. A motion appears in my name, though not proposed by me. I do not oppose them, but pretend to be an indifferent spectator of their proceedings, which course becomes necessary if I would not involve myself in their personal and party struggles. It will all die away after election. If you see Derastus Fitch, request him to write me a history of Doctor Richardson's career in Danby. If necessary, to forward affidavits. Dr. R. acknowledges that he ran away for debt and *other causes*. He takes particular pains to slander Fitch and Uncle Joseph and pretends to give family anecdotes. His avowed object is to injure me by showing my descent from such a family. Many believe him and the only way for me to check the evil is to draw his attention to his own concerns and by showing his real character destroy his credit amongst some officious friends. It has placed me in an awkward predicament as I am called upon to defend the characters of men connected with me by ties of blood, yet of whose private history I am utterly ignorant. Tell him any notes or accounts can be collected by enclosing them to G. O. Wittemore or to Daniel Le Roy.

When Uncle Lionel comes on send me some grape roots and flower seeds. The Isabella and Sweet Water are all the kinds I care for, marking them so that I shall be able to distinguish them. Should you, in your visits to the auction rooms, find any medical or miscellaneous works which I have not read I wish you would buy them

and forward them to me with the prices and I will pay you for them in the fall. I have frequently observed sets of Medical Chirurgical Reviews for sale there. I should value such a set higher than almost any other work. I have the largest library in the county and I frequently almost get the blues turning and twisting them over and over, seeking something new in them. Books can be obtained in Detroit by paying 300 to 400 per cent on the eastern prices. Good's old edition they ask \$18.00 for, by which you can form an opinion as to their prices.

Though I can sympathize with John in the loss of poor Watch, tell him not to mourn as I will next fall give him a dog worth a dozen of him. It is of a favorite breed in this country, a mixture of the gray hound and wolf; they are faithful, speedy and strong. The generally require considerable training as they are naturally very fierce. Nothing can entice them from their duty whether in the chase or on the watch. The breed is nearly destroyed by scoundrels killing them where the color corresponds and selling their scalps, calling them wolves and drawing a nominal bounty.

I am sorry to learn that you have been sick since father got well. We have had a great many similar cases here, a large number of which were fatal on the fifth and seventh day. In general, too much dependence was placed on ordinary remedies to the neglect of bleeding. Typhoid pneumonia has prevailed extensively in different parts of the territory and has been very fatal amongst the aged and dissipated. Doctor Chamberlin has had a severe run of enteritis but is now convalescent. Doctor Thompson is laboring under a partial derangement and determined that he must die. He is certainly a curious mortal. Since my dissolution he has thrown a great deal of business into my hands and at this time will take no medicine nor follow even his brother's prescriptions unless I advise it. Previous to that he was bitter and implacable towards me. I think he will recover from his disease, though it will be some time first.

Abby seems half disposed to scold at me for using the term "chit-chat". Though it amused me, she must know that I have too high an opinion of her to imply a suspicion that she could ever degrade herself so much as to become the "mooning oracle of a neighborhood". Anent charities, fate will make too strong an impression on her mind to be easily forgotten—and I think she would scarcely be willing with the title of "Gadder" to unite the one most horrible to a lady, that of "Old Maid". I am pleased to see how much she has improved in her composition, and at this time it will hardly be necessary to thank her for her long and interesting letter. You must let her have the corner of a letter to me as often as convenient. The changes in Waterford must be great since I was there, and I almost fear that I shall feel lost next fall amongst the Puritan faces. Mrs. Henry must take real comfort in making and drilling prosylites. Tell her that the prospects are improving in Pontiac. An effort is making to raise funds to build a church—though I apprehend that they will fail and there are very few professors that are able to render any assistance. Is it Francis or Abby Peoples that is sick? There was a blot on the name and I failed in making it out.

I almost wish I could be in Waterford now to see how you all make out in gardening. Has Mr. Strachan got his hothouse in operation this spring? (And now while I think of it, I have

promised Mrs. Le Roy that I would write for some "For Get Me Not" seed which you may find in the neighborhood). Ask Mr. Strachan the best time for sowing such seeds as Abby shall put up. Does Laura live where she used to? I will not ask any more questions though at this time, as you will have your hands full to attend to all the above requests, therefore recollect me to all and I remain

Yours respectfully,

D. L. Porter.

Pontiac, 12th June, 1831.

Dear Brother:

Your letters and father's, which were sent by Mr. Mercer I received about a fortnight since. The grapes, books and everything else came safe and I am very much obliged to all of you for the favors.

The grapes I have set out and I believe every one of them will live. The soil and climate of the peninsula are peculiarly adapted to the cultivation of the grape and all the fine fruits, but as yet but little attention has been paid to them. Tell Abby that most of the flower seeds she sent me have come up and I hope that I shall be able another season to give her a nosegay from them, premising, of course, that she will come to Pontiac.

Our spring has been very late and wet, but for the last three weeks, for the most part, we have suffered from excessive heat during the middle of the day, the nights being cool and extremely damp. The emigration to this country exceeds all calculation. Great numbers have gone beyond us on the Saginaw Shiawassee routes. The actual settlers that have already purchased in this country are calculated to amount to at least 2,000, and in other sections of the territory it is fully as great. The steamboats (a daily line) have some weeks brought 4,000 besides an equal number in the schooners and great numbers by land. In fact, the Michigan fever appears to be completely epidemic at the east. The health of the county has been very good for the season, no cases of fever have occurred as yet—except mild intermittents. I am fearful, however, that this will prove a very sickly season. The swamps are all full, which is always a precursor at this season of the year, and our days being hot with cold nights, undermine the health almost as rapidly as it does farther south, though our diseases are not of so malignant a type as they are three degrees farther south. Emigrants coming to the country at this season of the year, having to submit to the privations and vexations which they must always experience, are more exposed than the old settlers.

Business of all kinds is lively—particularly mechanics, who are all very hard drove. Mercer has opened his shop and is doing a good business. The people like him and he cannot do otherwise than make money if he drives business as lively as he has done heretofore. His family are very pleasant.

Father speaks of visiting Virginia—by all means defer it until the fall for a change of climate affects the system of a northern or eastern man more than I thought possible. I should never think of returning to the state of New York to practice physio, as more money can be made at the south than under the most favorable circumstances there. My intention is ultimately to go down the valley of the Mississippi or to the Floridas. Let us know in your next when Uncle is coming to Michigan. Phillops and myself would



both like to see him very much. Phillops is driving ahead bravely and for some months past has made money very fast and is determined now to be rich. All his old hangers-on have left the country or are dead and he feels encouraged again. Would you write a line to the Argus office and request them to send me their semi-weekly for six months. We shall have a new paper started here on the 4th of July. Our people are the craziest politicians that I ever saw. The excitement at this time is very great and every one has to take one side or the other.

I must cut my letter short as I have to start immediately to see a patient and I shall not be back in time enough to finish and mail it. My respects to all.

Yours respectfully,

D. L. Porter.

W. P. Porter.

Pontiac, 14th August, 1831.

Dear Brother:

You appear to have forgotten the art of letter writing altogether, by not writing once in three months. I will excuse you, however, on the ground that you have such a *multiplicity of engagements* that it would be considered an unwarrantable degree of extravagance of time, to spare one or two hours a month. But "sufficient unto the day is the evil thereof." It is so recently that I wrote home that I have scarce anything to communicate.

#### POLITICS AGAIN

Politics is almost the only subject that engages public attention. In this country we have carried the election of every candidate which we wanted except that of delegate. The Anti-Masonic candidate, contrary to my expectations, got 39 majority. One-half of the citizens in this part of the county did not vote for delegate at all, as the supposed wings election sure spent all their time in electioneering for the members of the council, in which all were more immediately interested.

The appointment of Mr. S. S. Mason has excited the most violent opposition in every part of the territory. He is now acting governor, but the executive business is almost altogether suspended as the public officers will not do any more business with him than they are absolutely obliged to. I have seen him and he appears to be a very intelligent likely *boy* (age 19.) You have probably read the proceedings of the several meetings. Two have been held in this county.\* The one at Auburn six men were in the room, including the hostler and a foreigner. In Pontiac five men who were with the exception of one man officers under the United States government. Not a citizen would turn out, but all united in treating the subject with merited contempt and ridicule. Who will receive the appointment of governor is a question on which all are divided and uncertain. Some say Eton (who will be scouted in Detroit as he is almost universally hated there and on the frontiers); others insist upon it that Austin Austin E. Wing or Gen. Root will have the preference. Whoever receives the appointment must expect to be severely criticised as the tide of popular opinion is set against Jackson's administration and there is but one press in the territory (and that will have to fall through for want of support) in his favor. All are Clay.

\* (To gloss over the concern and compliment the president—faugh!!

Emigration continues to increase. If you had rode over this county with me two years ago you would not now recognize it. Where there was not a house for forty miles then there is one now every mile and sometimes nearer—most of which have from ten to fifty acres of ground broke up for wheat. Wheat has done extraordinarily well and all the crops will pass muster.

Business is tolerable good the last 30 days; my charges are \$145.88. The last week \$10 a day and the sickly season is but just commenced.

Have you ever sent word to the Argus office? If you have not, send a line with my direction for their Semi-weekly Argus for one year. I have received one-half a dozen numbers in the last two months and they are either careless in mailing them or miscarry.

A newspaper will be started here in two or three weeks, to be entitled the "Star of the West", published by Mr. Cowen, late of the city of New York. He will get about 800 subscribers.

What has become of Uncle Lionel? Archey Phillips enquires for him every time I see him and is anxious as well as myself to hear from him.

I expect to start for Waterford between the 10th and 20 October with Mr. Seth Beach. We are both arranging our business for that time, though it may be as late as the first of November before we start; if it is we shall go by way of Montreal—Burlington, Vermont, etc.

How is business in Waterford? You have none of you said a word about it for several months. You may tell the old maids (for instance, Aunt Charity), that I have got a rich old bachelor for them to shoot at (with Cupid's arrows?) in the person of Mr. S. Beach, and I shall keep him there until they make a conquest on condition that they will be very accommodating. He is only about thirty-two, an age which requires advice and protection, for which Aunt Charity is well fitted by her matronly age and acquirements. Does she get religious yet, or has she not got out of the age of Deism (that is to say, 38).

Recollect me to Mary, Laura and all the rest. Write soon and oblige

Yours respectfully,

D. L. Porter.

W. P. Porter, M. D.

P. S.—Recollect the Argus. I want very much to keep the run of New York politics.

Pontiac, 1st May, 1833.

Dear Brother:

For once you shall have a short letter, as but twenty minutes are allowed by the postmaster. What is the reason that you or some of the family have not written or sent me a paper since the last of February? The last letter I received from home is postmarked 9th February, from father. I have sometimes feared that ill health was the cause, which cannot hardly be, for if any of you were seriously indisposed you would write forthwith, but to business:

I wish you to see Higgins as soon as convenient and find out his views in relation to Pontiac. Write yourself and request him to do the same, and do not forget the chit-chat of the day.

About four days since Mr. Schinla Hodges, a merchant of this village, and one of the first settlers of the county, started for New York. He has employed me in his family ever since I came here and used all his influence for me. He is engaged in a heavy business and knows more of the inhabitants and prospects of this county than any other man in it. I was sure that the family



would be pleased to see him and requested him to call, which he has consented to do. Before he arrives I wish you would put up some grape roots (no foreign ones) and young plum trees of any kind (as even the horse plum is considered a rarity here). My object in getting them is more to gratify four or five families amongst whom are Beach and Le Roy and Hodges, who are frequently asking us to write to my friends for some—than any ultimate benefit to myself, as in all probability I shall be some thousands of miles from here before they yield any fruit. By the by, Hodges knows nothing about my future calculations and so far is he from suspecting them that he, as well as some others, suppose that it is not impossible that I shall one day be his brother-in-law, and I have no objections to his retaining that impression for the present. His wife's sister, Miss Williams, is a fine girl enough, of a good family, property and country education, but such an encumbrance would be out of the question with my prospects and views of matrimony.

I forwarded some grape seed to Mr. Strachan by a Mr. Parke, merchant of Auburn, two weeks since; he engaged to mail the package at Albany. I would have mailed it here, but our postmaster wanted triple postage, which would be making dear seed of it. They are all of the native grape from Huron river and St. Clair, which many in this country call first rate, but which cannot compare with the Issabella.

If Abigal has any more flower seed to spare I should like a few of the common kinds for "Ladies fair"—those that she gave me last fall are sown in Mrs. Le Roy's and Miss W's. gardens and some of them were up yesterday. Our spring is late, and business is very dull. The ague is the only complaint which is prevalent at present. When navigation commences I hope it will improve.

Seth Beach has almost concluded to marry a young and buxom widow in Auburn—weddings are the order of the day. Yesterday I went to see young Andrews (nephew of Dr. Machivel) lately from Stillwater), who fell 23 feet from the Academy frame in Auburn—struck square on his back across a hand spike. He is very badly bruised, but will recover. Dr. Machivel Andrews is now in Malden doing a great business, but Henry tells me is ruining himself by dissipation. The horn is blowing and I must wind up. Recollect me to all, write soon and occasionally send me a paper.

Yours, etc.,

D. L. Porter.

W. P. Porter.

P. S.—Pack them in moss in a box and direct to D.L.P., Pontiac, Md., care of Barker and Stoll, Buffalo.

Pontiac, 18th September, 1833.

Dear Brother:

Yesterday I received a letter from you and the day before, one from John, postmarked Ypsilanti. John forgot to date his letter or to mention the name of the bearer, but deserves great credit for his composition. What was the subject of his original essay at the exhibition? I was very sorry to hear that Cornelia had suffered so much from the Cholera Morbus, but flatter myself that by this time her health is entirely restored.

By the papers I perceive that the cholera is still the absorbing topic at the east *next to politics*. The disease continues its ravages on the frontier, though not to the same extent that it did a few

weeks ago. In Detroit all diseases assume the characteristic symptoms of the epidemic after the inflammatory symptoms have subsided. The proportion of deaths is very small and at present it is impossible to ascertain the exact number as the papers publish no reports on account of the continued fears of the inhabitants of the interior. We have not had a case yet in our county, but scarce a person who is much exposed to the night air escapes a severe attack of cholera morbus or diarrhea. The latter have been more obstinate than I ever saw before. I have had it slightly but it did not prevent me attending to my business for more than four days.

At this time I enjoy better health than I have for two years past and can undergo greater fatigue. The health of the country is improving rapidly and if it continues in the same ratio for two weeks longer I intend visiting Chicago. A party leaves here on the first of October to attend the Indian payment. I have a great curiosity to see it as there will probably be four or five thousand Indians collected there, which includes the whole number of those friendly to the whites.

By the latest accounts our war is about at an end, at least for the present. This is better than the most sanguine could hope for a few weeks since as our troops had to march hundreds of miles through a wilderness; if they get General Blackhawk there is no doubt that it will put an end to depredations for years, if not, he will excite other tribes to take up arms. His education (a liberal one) gives him as great an ascendancy over the Indians as ever Tecumseh had, and he is as implacable an enemy to the whites as old King Pontiac.

Politics begin to attract public attention and you would be amused to hear the sage deliberations of the inhabitants of every hamlet, almost every family in this country taking from one to three papers; they enter into the full merits of the respective candidates and measures are approved or condemned with the same promptness that they would be if we had a voice in the coming election. Jackson would not get a *tolerable minority in Michigan*, four-fifths being warm advocates of Clay. I feel confident that Clay will succeed in the west, let his support be what it may at the east and south. It will be a warm contest at all events.

Albert Phillops, who formerly lived with Uncle Lionel, was here day before yesterday, viewing the country. He is living in Thompsons county and has a family; whether he will settle in Michigan, I do not know; he intends returning this way in a few days.

While on board of the Enterprise there were two fatal cases of cholera, one of whom was the first mate. Mr. Heart, to whose skill last fall as a sailor Uncle L and myself owed the preservation of our lives. He was the best sailor on Lake Erie and when you see Uncle, tell him of his fate.

It is unsafe traveling on Lake Erie in the steamboats as there are more or less cases every trip, probably occasioned by the crows and heat of the machinery. If a friend travels this way, advise them by all means to travel by land all the way. It will take a little more time and become more expensive, but that is nothing compared to the risk.

My business has been very good this season all the time that I was able to do business, but hope that the season of sickness will soon be over as I want a play spell.

John writes about horses. Tell him that I have

a mate for the gray four-year-old, but I have hurt her shoulder and turned her out. Three days ago I bought another, a bay gelding six years old, perfectly broke and as good as ever the old bay was. He is from Kentucky and cost me one hundred dollars. He racks trots or canters and without a curb bit it would require three men to hold him. This winter I may drive him to Waterford; as yet it is uncertain.

Can you ascertain whether Uncle L. intends to visit us this fall? Tell him to write at all events as we are anxious to hear from him.

How does Mr. Strachans' garden look this season? Tell him that I mean to show him an extra one for *this country* in one or two years. I have bought me a very handsome situation on the Court House Square in this village, in all five lots, and my men are now getting out the timber for a house, which will overlook the whole of the village.

McOmbes family were all well and wished to be recollected to their friends when I wrote. I saw them last week. Marian is quite a belle here and has little or no competition. Whether she will find any one to suit her here I cannot say. Recollect me to all our friends. Write soon and oblige

Yours, etc.,

D. L. Porter.

W. P. Porter.

P. S.—What has become of Susan Ten Brook and the other young ladies of W.? Who of them are, or are to be married?

(The End.)

## DIAPHRAGMATIC HERNIA

R. S. MORRISH, M. D.

C. D. CHAPELL, M. D.

FLINT, MICHIGAN

Diaphragmatic hernia, as the name suggests, is the protrusion of a part of the abdominal viscera, through an abnormal opening in the diaphragm, into the thoracic cavity. Until the advent of the X-ray, the condition was rarely diagnosed clinically with any degree of accuracy. With the use of the barium meal study of the gastro-intestinal tract, it has been shown that diaphragmatic hernia is much more common than was previously believed.

Collection and analysis, of the findings in the individually reported cases, has made it possible to draw quite definite conclusions concerning the cause, symptoms, course and treatment of these hernias.<sup>1-2</sup> From a study of these findings it has been learned, concerning the cause of diaphragmatic hernia, that it may be of congenital origin, it may be due to trauma of the diaphragm, or it may be acquired. The congenital type is due to imperfect closure of the diaphragm in one of several areas, but most commonly at the junction of the ensiform process and the costal cartilages. Traumatic hernia may follow injury to the diaphragm, from crushing body injuries,

stab or gunshot wounds. Hernias of gradual origin at one of a number of anatomically weak spots, but most commonly at the esophageal opening, are spoken of as acquired.

The cause of a hernia may not always be easy to determine, and where doubt exists, it may not be possible to accurately classify. Hernia of the right side of the diaphragm is rare, due to the protection afforded by the liver, and the organs that pass through the opening are, therefore, the contents of the left side of the abdomen.

### SYMPTOMS

The symptoms encountered in diaphragmatic hernia are neither very definite nor constant. In case of accident there is usually an immediate pain in the epigastrium, and in the left hypochondrium with a tendency to radiate to the left shoulder. This is followed by digestive disturbances, dyspnoea and palpitation of the heart. The symptoms may come on some time after the ingestion of food and simulate duodenal ulcer or gall bladder disease. The inability to eat more than moderate amounts of food without causing an uncomfortable sense of fullness in the stomach, which is relieved by vomiting, may suggest pyloric obstruction. Involvement of small intestine or colon suggests obstruction.

### PHYSICAL SIGNS

The physical signs are as indefinite as the symptoms, but the most important seem to be as herewith enumerated:

1. Displacement of the heart to the right.
2. Distant or absent breath sounds over a large part of the left chest.
3. Metallic tinkling heard high up in the chest, not especially corresponding in time to the respiratory movements.
4. Tympany high up in the left chest.
5. Absence over the left chest of a dull note as in the presence of fluid, and of the hyperresonant note of pneumothorax.<sup>3</sup>

In the differential diagnosis, great reliance should be placed on the roentgen ray demonstration of an abdominal viscus, or a portion of one, above the diaphragm.<sup>4</sup>

### SURGICAL REPAIR

Given a well established diagnosis of diaphragmatic hernia, unless there is some definite contraindication, an attempt should be made at surgical repair of the condition, because of the incapacitation, and impaired health incident thereto, and the danger of strangulation.



Wide exposure with complete relaxation under a general anesthetic is essential. An incision on the left side, such as is used in performing a splenectomy, is satisfactory, and enables the operator to pull down the herniated organs into the abdominal cavity. When this is done, the pillars of the diaphragm should be closed with a strong suture, preferably one of absorbable material. As an additional precaution against recurrence, it has been recommended that the stomach be sewed over the repair, or to the parietal peritoneum.

The after care is similar to that following a gastro-enterostomy.

#### CASE REPORT

The following case record is illustrative of the enormous amount of abdominal contents that may enter the chest through the diaphragm, and of the marked permanent disability that results in the untreated case.

Mr. M., age 33, a painter by occupation, was first examined in December 1920 and gave a history of falling a distance of 40 feet, five years previously. He suffered considerable pain in the hips, and was very weak in the legs for about five months, but otherwise seemed to have no unpleasant symptoms. In 1918, he began to have pain in the stomach immediately after eating, which would reach maximum intensity about one-half hour later. Distention often was very distressing and was always relieved by vomiting. In 1919, was sick two weeks with influenza, and following this, the pain in the stomach seemed to travel upward into the chest, and there was always marked dyspnoea after meals. A very pronounced constipation also developed at this time.

On examination, the general appearance was good, although the face was unusually ruddy, rather suggestive of cyanosis. He was dyspnoeic at all times following exercise, and extremely so after a meal.

The chest was long, with a slight fullness in the left infra-clavicular area. Expansion was about equal on the two sides; tactile fremitus diminished over entire left side. The heart apex was in the 5th intercostal space, and left border about the left sternal margin. On percussion, there was extreme dullness over the entire front, and auscultation showed a general muffling of breath and heart sounds.

X-ray examination of the chest showed a circumscribed area of lessened density in the first and second interspaces, which gradually increased and decreased alternately with the movement of air bubbles from below upward. The barium meal followed the esophagus down to the level of the diaphragm, and then made an acute turn and passed rapidly into the left chest. The stomach filled regularly in all directions, except at the diaphragmatic opening, where it was impossible to visualize the duodenal cap. In the six hour examination, about one-third of the meal remained, and the cap was found to be normal in contour. Above the level of the diaphragm, there was found the stomach, duodenum, and a portion of the splenic flexure, all of which caused ex-

treme compression of the lung and displacement of the heart to the right.

In addition to his distress, and an enforced strict regime in diet, this man was at a distinct disadvantage because of loss of time from his work. He lost an average of one to two days a week. The advantage of an operation was explained, but he chose not to have it done, and the last time he appeared for observation, three years later, he was capable only of doing light bench work in an automobile factory, while his symptoms were unchanged.

The summary of another case is presented herewith in which the size of the hernia was unusually large, and is of considerable interest because several months following closure, inspection of the repair was made possible during a subsequent operation for another condition.

Miss M. M., age 26, single, core maker by occupation, was first hospitalized December 25, 1922 because of injury sustained of the pelvis and left sixth rib. On the second day, she developed what the attending physician diagnosed as traumatic pneumonia, and complained of severe dyspnoea and pain in the left chest. These symptoms cleared up by the fourth day, but a nausea persisted for a week longer. She vomited bright blood at the onset.

At the end of a month, she returned home and resumed her work as a core maker. She was required to lift heavy trays, and this made her uncomfortable, and she found she was less efficient than before the accident. Dyspnoea would occur after slight exertion, and a hearty meal would cause a sense of fullness in the left chest with pronounced cardiac embarrassment. Enforced restriction in diet caused a loss in weight from 160 to 119 pounds.

When first seen by one of the writers, September 3, 1925, she complained, in addition to the sense of fullness in the stomach, of cramp like pains immediately after swallowing and of a very acid stomach.

Examination showed some tenderness in the right epigastric region. In the chest, the breath sounds were distant over the entire left side, with a tympanic note of percussion. The heart was displaced to the right.

X-ray examination of the chest and gastro-intestinal tract showed the right diaphragm to be normal in contour; the left was elevated materially. The bismuth meal passed readily down the esophagus to the level of the diaphragm, then flattened out, and the normal shape of the stomach was not noted, because it was displaced upward to the level of the seventh rib. The pyloric cap could not be visualized. The stomach was empty in one and one-half hours, and the small intestine in 24 hours. There was some stasis in the cecum and transverse colon. Interpretation of these findings, then, showed an eventration of the left diaphragm which contained the stomach, splenic flexure, the proximal loops of the descending colon, and the distal loops of the transverse colon.

Operation, for the purpose of repair, was performed September 25, 1925. The abdomen was opened by a large S shaped incision in the left upper quadrant, extending slightly below the level of the umbilicus. The esophageal opening in the diaphragm was distended to a diameter of five inches, and through it had passed into the chest



cavity, the stomach and omentum, the left lobe of the liver, splenic flexure, a portion of the transverse colon and some small intestine. This was then a case of diaphragmatic hernia, and not an eventration as suggested by the X-ray. The left lung was collapsed, and the stomach and liver were adherent to the posterior parietal pleura.

Following separation of these adhesions, the organs were easily brought back into the abdominal cavity. The edges of the diaphragm were next brought together with about 12 interrupted sutures of heavy, 40 day catgut, and the stomach finally sutured over the repair in the diaphragm.

There was a large, indurated ulcer on the anterior surface of the duodenum, but no attempt was made to remove it, for the patient began to show signs of shock.

Dyspnoea was rather pronounced for two days following the operation, but otherwise convalescence was uneventful. She was kept in bed two weeks and resumed her work November 26, 1925.

X-ray examination, October 24, 1925, showed the diaphragm to be of normal level, and the lung was nearly expanded again. Dyspnoea had disappeared entirely.

February 5, 1926, she again appeared for examination, and complained of pain in the epigastrium about an hour after eating. There was evidence of retention, which was relieved only by vomiting. X-ray examination showed the presence of pylorospasm and a definite filling defect in the duodenal cap.

Operation was performed February 17, 1926 for removal of the duodenal ulcer with the actual cautery, and a new opening was made in the stomach by means of a posterior gastro-enterotomy.

Examination of the diaphragm showed complete closure of the former opening and all organs were in their normal position.

Postoperative recovery was uneventful, and the patient has been entirely free from unpleasant symptoms to the present date.

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### FRAGILITAS OSSIUM— ITS HEREDITARY ASPECT\*

(With Case Report)

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Fragilitas ossium is a disease manifested by excessive and abnormal brittleness of bones, especially the long bones. Synonyms for this condition are considered by some to be, osteopsathyrosis and osteogenesis

imperfecta, (see later). Lobstein<sup>1</sup> first described the disease in 1833.

In affected individuals there are multiple fractures, usually after negligible traumata.

Lovett and Nichols<sup>2</sup> found that the Haversian systems of bone are absent, and concluded that the formation of bone was abnormal. Key<sup>3</sup> found the Haversian canals to be large and irregular. Wagoner<sup>4</sup> found the Haversian canals distorted and the cortex thin. The calcium and phosphorus content of the blood plasma, and the calcium, phosphorus and magnesium content of bone are normal.

The remarkable family grouping of this disease is very important, and according to Schwarz and Bass,<sup>5</sup> heredity is the important factor.

In 1896 Spurway<sup>6</sup> called attention to the association of blue sclerotics in certain cases of fragilitas ossium. In 1900 Edowes<sup>7</sup> independently did the same.

In 1918 Van der Hoeve and de Kliejn<sup>8</sup> reported the association of fragile bones, blue sclerotics and deafness in all members of two families.

#### CASE REPORT

The following is a report of the main facts in a case of fragilitas ossium in which the family history is known for four generations.

M. C., a 12-year-old white American girl entered the Children's hospital of Michigan, for the second time, May 10, 1926, from the Farmington Convalescent Home.

C. C.—1. Painful right thigh. 2. Disability.

P. I.—Following a very slight fall there was immediate disability in the right thigh, and severe pain there. She was brought to the hospital by ambulance at once.

P. H.—The patient had had 15 previous fractures of the long bones: all had healed without deformity. Two years ago a fracture of the right femur had been plated, elsewhere, with a steel plate and four screws.

F. H.—See end of case report.

#### Positive Points—

P. E.—A young white girl of average stature and development, in severe pain.

Ears—Slightly hard of hearing.

Eyes—Sclera were bluish.

Heart—Heaving apex impulse seen and felt in the 5th i.c.s. at nipple line: L. B. D. nipple line, R. B. D. at right border of sternum. No increase of supracardiac dullness. No thrills. There was a loud blowing systolic murmur at the apex.

Extremities—The right lower extremity was shortened one inch, flexed on the thigh and externally rotated. There was a large deformity at the mid-thigh, and marked muscular spasm in this region. Crepitus was not attempted. The area was very painful.

Pulse was 100 and temperature 99. Respiration 22.

\*From the Orthopaedic Surgical Clinic of the Children's Hospital of Michigan.

*Procedure, Operation, Progress—*

Traction with adhesive was applied, a Thomas splint and Buck's extension apparatus were used. The foot of the bed was elevated six inches and 14 pounds weight used.

The wound quickly cleared, and temperature became normal. A cast was applied on June 10, 1926.

On June 12, 1926, the patient was discharged to the Farmington Convalescent Home.



FIG. 1

X-ray on entry showing re-fracture at point of previous plating, with practically no callus except opposite the point of plating.

X-ray on entry showed the femur to be refractured at point of plating, with considerable displacement. End-to-end approximation was reached in 24 hours. The steel plate was loose.

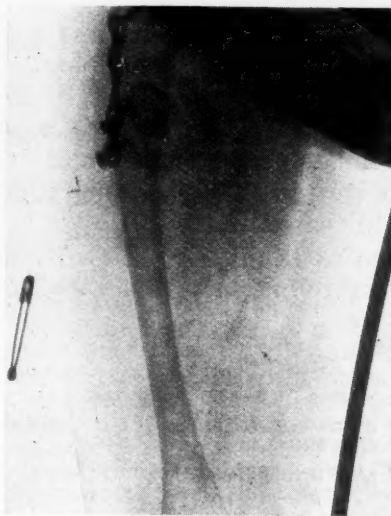


FIG. 2

Twenty-four hours after application of adhesive traction.

On May 14, 1926, under nitrous oxide anesthesia, the metal plate and screws were removed through a three-inch longitudinal incision on the lateral area of the thigh at the middle third. The ends of the femur were end-to-end. Areas of rarefaction were seen where the screws had been and were loose, (chronic osteomyelitis). The wound was closed without drainage, and the leg again placed in a Thomas splint with moderate traction.

On May 20 the temperature was 103 degrees, and on probing the wound, several drams of pus were evacuated. Dakin's irrigation was instituted.

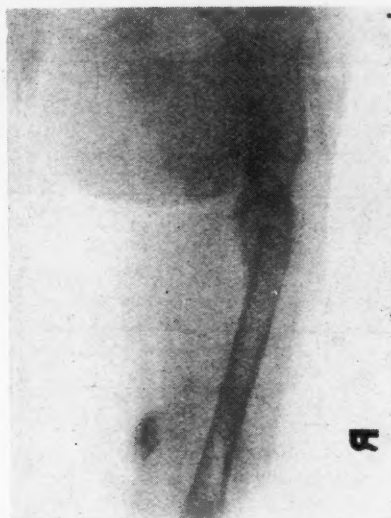


FIG. 3

Three months after the injury.

On August 9, 1926, the X-ray showed union in good position.

The family tree is diagrammed below.

*Family History—*

Four of the patient's five brothers and sisters



FIG. 4

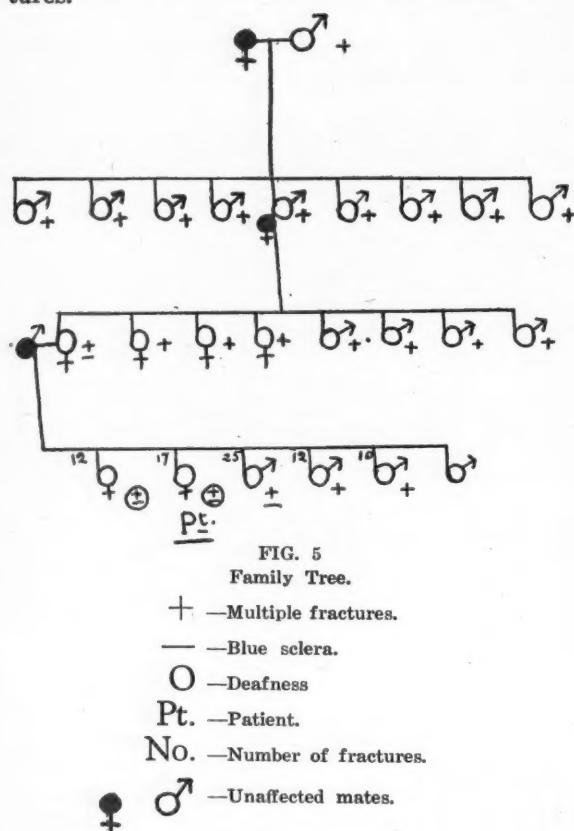
Abnormal trabeculation, and almost cystic character of the bone.

have had multiple fractures: the sixth is six years old, and has not had fractures. Two others of this generation have blue sclera: two are deaf.

The mother of these children is crippled from multiple fractures. She has blue sclera. She has seven brothers and sisters, all of whom have multiple fractures, but no history of deafness or blue sclera.

The maternal grandfather of the patient had multiple fractures, as did his eight brothers. No history of deafness or blue sclera can be obtained.

The maternal great-grandfather had many fractures.



#### DISCUSSION

In this family, for the four generations which followed, brittle bones have not skipped a generation. Practically all members have had this symptom; several have had blue sclera and deafness.

Conrad and Davenport<sup>9</sup> have concluded that the hereditary factor involved is typically dominant, and therefore, 50 per cent of offsprings should be affected when the mating is with a normal.

In this family the marriages were with unaffected individuals, and all but one of the offsprings had fragile bones.

Key has stated that fragilitas ossium, osteopsathyrosis and osteogenesis imperfecta are not synonyms, as given by Osler<sup>10</sup> and other authors.

He considers:

1. Osteopsathyrosis idiopathica — Patient has frequent broken bones and blue sclera—born of normal parents.
2. Osteogenesis Imperfecta—not hereditary—occurs at birth and infancy.
3. Hereditary hypoplasia of mesenchyme—brittle bones and blue sclera—Parent affected.

Key feels that Conrad and Davenport did not differentiate their collected 35 cases, (reported in 1915), in these groups, and that only four were truly of class No.

3, the truly hereditary type which they discuss freely.

According to Key, a generation is never skipped in the transmission. In his opinion children with normal sclera born of affected parents will have normal children. They also feel that only persons affected with blue sclera are subject to brittle bones. The members with white sclera being normal in other respects.

From their analyses of the literature, they conclude that blue sclera is the only feature of hereditary hypoplasia of the mesenchyme which is present in every case, and which is transmitted as a dominant hereditary character.

The family reported must be classified in Key's third group, i.e. hereditary fragilitas ossium. In this family group, however, the blue sclera were not dominant, and members not having blue sclera had brittle bones. No generation was skipped in the transmission. Fragile bones in this family are more common than would be predicted from a dominant characteristic.

#### CONCLUSIONS

1. A case of hereditary fragilitas ossium is reported with the family tree, and with the progress through one fracture.
2. Unlike the conclusions of Key, blue sclera were not dominant; and members not having this condition had fragile bones.
3. Brittle bones occurred in almost every member of the family tree.
4. In the four generations there was no skip in transmission.

I desire to thank Dr. F. C. Kidner for permission to publish this case, and for counsel.

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## POST OPERATIVE PULMONARY ATELECTASIS\*

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This condition has been defined by Scott<sup>1</sup> as a febrile complication arising within a few days of operation; the characteristic and unique feature, a combination of signs of a unilateral pulmonary consolidation with displacement of the heart toward the affected side.

Since Scrimger<sup>2</sup> first drew attention in American Literature to atelectasis as a post operative complication, it has been repeatedly recognized in many clinics, and in the neighborhood of a hundred cases have been reported. Excellent clinical descriptions and discussions as to possible etiology have been published, among others, by Scott, Jackson and Lee<sup>3</sup>.

It is the purpose of this paper to add to the existing reports an account of seven additional cases in which pulmonary atelectasis was recognized as a complication of abdominal operative procedures.

### CASE REPORTS

Case 1. M. B.—A robust male, aged 24 years, entered the hospital April 16, 1925, complaining of rupture. There was no history of any recent respiratory infection. Examination was essentially negative except for a left indirect inguinal hernia.

Herniotomy was performed April 17, morphine grain 1/6 and atrophine grain 1/100 were given hypodermically as preliminary medication. Ether was administered by the open drop method. There was no vomiting during the period of induction. Cyanosis was not observed during the operation, nor was there any excess of mucous. He vomited once while reacting from the anesthesia.

The patient rested well during the night, but early the following morning he complained of the collection of mucus in his throat. A few hours later coughing became incessant. The temperature, pulse and respiration, which previously had been normal rose to 100.6°, 124 and 40 respectively. Severe substernal pain developed about six hours after onset of the first symptom.

The patient lay curled on his right side. Inspection revealed that motion of the right side of the chest was markedly restricted and moderate cyanosis was observed. The cardiac point of maximal impulse was 7½ centimeters to the left of the mid-sternal line in the fourth inter-space. Dullness extended eight centimeters to the left in the fifth inter-space. The right border of the heart was 3¾ centimeters from the mid-sternal line in the fourth inter-space.

Impairment, on percussion, was observed posteriorly over the right side of the chest beginning in the mid-scapular region and extended to the base. The percussion note in the right axilla was also dull. Auscultation revealed suppression

of breath sounds over this entire impaired area. A few sub-crepitant rales were heard in the upper right subscapular region and at the left base posteriorly.

The white blood cell count was 20,100 per cubic millimeter and in the differential count 88 per cent were polymorphonuclear neutrophils.

During the following two days cough which was only slightly productive, and profuse sweats were the most bothersome symptoms.

On April 21 cough was still present, but there was no sputum. Examination revealed less dullness at the right base and the breath sounds were slightly suppressed.

The temperature, pulse and respiration remained within normal limits after the sixth day post operative.

The patient was discharged from the hospital on May 5. He was last seen on June 3 at which time he had resumed his usual work and did not have any pulmonary symptoms.

### Report of X-Ray Plates—

#### 1. April 18, 1925.

The right dome of the diaphragm was markedly elevated. The heart mediastinum and trachea were markedly displaced toward the right. The



FIG. 1

Case No. 1. April 18, 1925. Atelectasis of the right with displacement of heart toward affected side.

ribs on the right were very close together, whereas the inter-spaces on the left were wide. The right lung field showed a diffuse shadow suggesting a consolidation throughout the lung. The left lung was clear.

#### 2. April 28, 1925.

The heart was no longer displaced. General lung radiation on both sides was clear. The diaphragm had resumed its normal level.

Case 2. S. P.—A vigorous young male, aged 26 years, was admitted to the hospital February 10, 1926, complaining of ruptures. The general examination was negative except for bilateral inguinal herniae. There was no history of any recent pulmonary infection.

On February 11 the herniae were repaired under ether anesthesia. Morphine grain 1/6 and atropine grain 1/100 were given as preliminary medication. Neither cyanosis nor an excessive accumulation of mucus were observed during the

\*From the Henry Ford Hospital.

operative procedure. The reaction from the anesthetic was uneventful.

At eight o'clock the same evening the patient complained of pain in the left chest. At this time the temperature was 100.2°, pulse 90 and

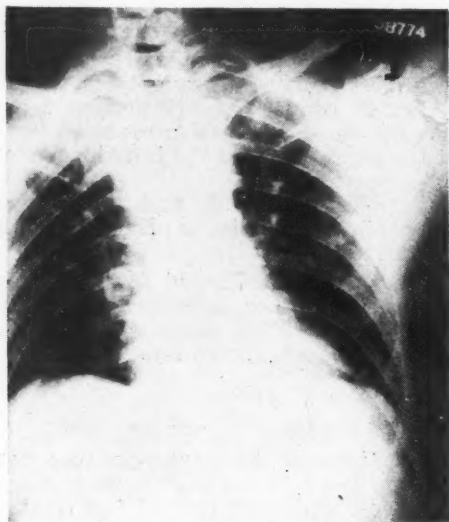


FIG. 2

Case No. 1. April 28, 1925. Normal chest after recovery.

respirations 34 to the minute. The following morning cough was quite bothersome and was productive of thick muco-purulent sputum. Examination at this time showed that expansion of the left side of the chest was distinctly limited. No cyanosis was present. The cardiac dullness extended 11 centimeters to the left of the midline in the fourth inter-space and to the sternal border on the right. On percussion the right lung was resonant throughout. The left lung was normally resonant except posteriorly where there was marked dullness, extending from the upper interscapular region to the base. On auscultation over the right lung the breath sounds were vesicular. Over the left lung anteriorly and in the upper axilla the breath sounds were exaggerated while over the area of dullness posteriorly there was loud tubular breathing and a few scattered crepitant rales were heard. On February 13th, the white blood cell count was 5500 per cubic millimeter.

On February 15 examination showed the cardiac apex was 10.5 centimeters to the left of the midline and 1 centimeter beyond the nipple line. Cardiac dullness extended 12 centimeters to the left in the fifth inner-space and to the sternal border on the right. The right lung remained clear. Percussion over the left lung anteriorly showed Skodaic resonance and over this area the breath sounds were exaggerated. Posteriorly the percussion note remained dull from the interscapular region to the base. The breath sounds were tubular in character and many subcrepant and crepitant rales were heard. Bronchophony was present.

The temperature returned to normal on the seventh day and was not elevated thereafter and the patient was discharged from the hospital on March 6, 1926. He was again seen on April 6 up to which time there had been no recurrence of any respiratory symptoms.

#### X-Ray Reports—

1. (Portable) February 12, 1926.

The heart was considerably displaced to the left. There was some narrowing of the interspaces on this side. There was some increase in density in the left lung field near the hilum, and some haziness over the lower third on this side. The position of the diaphragm was not unusual.

2. February 14, 1926.

There was marked increase in density over the entire left lung field. The heart shadow was

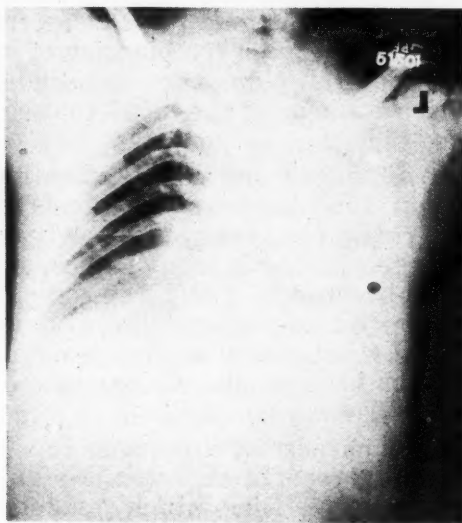


FIG. 3

Case No. 2. February 14, 1926. Atelectasis on left with displacement of heart toward affected side.

markedly displaced to the left. The right lung field was clear except for some haziness at the base.

3. March 1, 1926.

The heart was normal in size and shape. Radia-

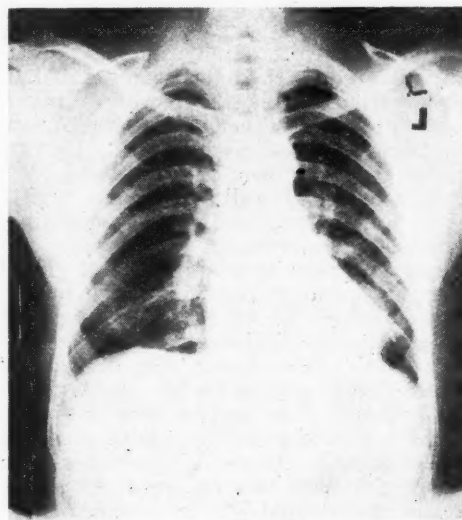


FIG. 4

Case No. 2. March 1, 1926. Normal chest after recovery.

tion through the lung fields was clear. Diaphragm was normal in position.

Case 3. L. M.—A vigorous young male, aged 25 years, entered the hospital March 3, 1926, complaining of bulging in the left inguinal region and in a right rectus scar from a previous appen-



dectomy. There was no history of any recent respiratory infection, but the patient had a chronic morning cough of seven years duration. Examination of the lungs revealed no pathology. A left indirect inguinal hernia and a post operative ventral hernia were observed.

The herniae were repaired under ethylene anesthesia on March 4. There were no untoward symptoms during the period of induction nor during the operation. The reaction from the anesthesia was uneventful. The patient complained of pain in the right chest the same afternoon. Lying on this side gave relief. Coughing began about the same time. During the first 24 hours the temperature gradually rose to 101.8°F. The respiratory rate which previously had been within normal limits, became elevated to 46 per minute. The pulse rate was 90 per minute.

Examination revealed rapid shallow respirations. The cheeks and lips were cyanotic, but the patient did not appear toxic. There was impairment on percussion over the right lower lobe posteriorly, elsewhere the note was normally resonant. On auscultation sibilant and sonorous rales were heard over the impaired area. There was a moderate amount of mucoid sputum which on culture showed pneumococcus, type IV, present. The white blood cell count was 20,500 per cubic millimeter.

Examination of the chest on March 6, revealed only slight changes from the previous findings. The percussion note was impaired over the right base posteriorly and an occasional rale was heard over this area. The voice sounds were not especially altered over the involved lung.

The patient's temperature remained within normal limits after the fourth day post operative and no further pulmonary symptoms developed. He was discharged from the hospital on March 21, 1926.

#### *X-Ray Reports—*

##### 1. March 6, 1926.

The diaphragm was slightly elevated. The heart shadow was definitely displaced to the right. The trachea was slightly displaced to the right. At the base of the lung, the diaphragmatic outline was somewhat hazy and there was some mottling and hazing in the lung field. The left lung was clear.

##### 2. March 8, 1926.

The diaphragmatic outline on the right was clear. The heart had practically resumed its normal position. The trachea was in the mid-line. The lung radiation on both sides was clear. There was distinct narrowing of the interspaces on the right side.

Case 4. C. A. G.—A healthy male, aged 30 years was admitted to the hospital April 29, 1926, complaining of hernia. Six months previously he had been troubled with a hacking cough but physical and X-ray examination of the chest revealed no pathology which explained this symptom. General examination on the day of admission showed the lungs were essentially normal. There were bilateral inguinal herniae present.

On April 30 bilateral herniotomy was performed under combined ether and ethylene anesthesia. The preliminary medication consisted of morphine grain 1/6 and atropine grain 1/100 given half an hour before starting the anesthetic. The induction period was quiet and the operation was uneventful. There was no vomiting during the period of reaction.

The maximal temperature during the first 24

hours after operation was 99°F and no unusual symptoms were observed. On the second day post-operative the temperature suddenly rose to 103°F, the pulse rate, which previously had been within normal limits became elevated to 160 per minute, and the respirations rose to 40 per minute. There were severe paroxysm of coughing which was productive of thick, yellow mucoid sputum which on culture showed a type IV pneumococcus.

Examination revealed moderate cyanosis. On percussion the left border of the heart was found to lie nine centimeters from the mid-sternal line in the fifth inter-space. The right border of the heart measured six centimeters from the mid-line in the fourth inter-space. There was marked impairment over the right lower lobe posteriorly. The breath sounds over this area were tubular. No rales were heard. The left lung appeared clear throughout. With this involvement the patient was not toxic. The temperature remained elevated for 48 hours, and thereafter did not go above normal limits. The white blood cell count was 19,700 per cubic millimeter, on second day of collapse.

The chest was again examined on May 11, 1926, at which time the cardiac dullness extended 10 1/4 centimeters to the left in the fifth inter-space and three centimeters to the right in the fourth inter-space. On percussion the front and sides of the chest were resonant, but there was slight impairment at the extreme right base. No alteration was observed in the percussion note over the left lung posteriorly. On auscultation an occasional sonorous rale was heard over both bases posteriorly. The patient was discharged from the hospital on May 19 at which time healing of the wounds was complete and there was no further pulmonary symptoms.

#### *X-Ray Reports—*

##### 1. August 30, 1926.

The heart was normal in size and shape. Trachea was in mid-line. Lung radiation is clear on both sides. The diaphragm is at the normal level.

##### 2. May 3, 1926.

The heart was markedly displaced to the right, as was also the trachea. The outline of the diaphragm on this side was obscure, and the interspaces were moderately narrowed. Density having a feathery structure gradually increased toward the base of the right lung field. The plates indicated that the chest was rotated very slightly toward the right.

Case 5. A. M.—A healthy male, aged 42 years, was admitted to the hospital June 3, 1925, complaining of rupture. There was no history of any recent respiratory infection. On examination no pathology was found in the lungs.

Herniotomy was performed on June 4, morphine grain 1/6 and atropine grain 1/100 were given hypodermically as preliminary medication. The operation was uneventful. Neither cyanosis nor excessive accumulation of mucus in the throat were observed during the anesthesia.

Fourteen hours later the temperature was 102°, pulse 100 and respirations 40 to the minute. Examination of the chest at this time revealed no striking findings, however, at the end of 24 hours, the picture was quite typical. The patient lay in bed curled on his right side. The lips were cyanotic. The respiratory rate was 48 to the minute, but there was no distress. There was some cough which was productive of mucopurulent

ent sputum with an occasional streak of blood. Movement of the right side of the chest was quite limited during respiration. Percussion of the left chest showed the note to be hyper-resonant throughout. On the right side the note had a tympanitic quality everywhere anteriorly except for an area bounded by the third rib in front, the sternal border, and a line drawn from the apex of the axilla to the apex of the epigastrium, practically the limits of the middle lobe. On auscultation the breath sounds over the left lung were vesicular. The breath sounds over the dull area above described were distant and perhaps expiration was a trifle prolonged. The left cardiac border was  $8\frac{1}{2}$  centimeters to the left of the mid-sternal line. The white blood count was 16,000 per cubic millimeter.

One June 10, the sixth day post operative, the patient continued to complain of cough, which was still productive of muco-purulent sputum. At this time there was an increase of resonance over the front of the right chest. The breath sounds were better than formerly. Over the back on the right side there was some impairment of the percussion note below the angle of the scapula. Breath sounds over this area were distant and a few subcrepant rales were audible. At the left base posteriorly the percussion note was resonant but a few scattered subcrepant rales were heard.

The patient was discharged from the hospital on June 19, at which time the chest was clear.

#### *X-Ray Reports—*

##### 1. June 5, 1925.

The right dome of the diaphragm was high. The trachea was definitely displaced to the right. A mottled shadow appeared in the right lung which occupied the majority of the upper and middle lobes. The lower lung field was clear. The left lung showed clear radiation. The heart was not appreciably displaced.

##### 2. June 11, 1925.

The lung radiation on the right was clear except for some increase in density about the region of the hilum. The heart appeared to be slightly displaced to the right. The diaphragm on the right was still a little high. The left side was clear.

##### 3. June 19, 1925.

The heart was in normal position as well as the trachea. Both lungs were clear. The diaphragm was at the normal level.

Case 6 J. M.—A healthy male aged 35 years, entered the hospital July 14, 1926, complaining of rupture. There was no history of any recent respiratory infection, but on examination the tonsils were large and cryptic. There were bilateral indirect inguinal herniae.

Plastic operation was performed on both sides on July 15, morphine grain  $\frac{1}{6}$  and atropine grain  $\frac{1}{100}$  were given as preliminary medication and ethylene was used throughout for anesthesia. The operation was uneventful, the induction was quiet, neither cyanosis nor excessive assumption of mucus was observed. There was no vomiting during the period of reaction.

The following morning the patient complained of mucus in his throat which could not be raised upon coughing. The temperature rose to  $102^{\circ}$ , pulse was 116, and respirations 28 to the minute. Examination of the chest revealed impairment upon percussion over the right base posteriorly. The breath sounds were poorly transmitted over

this area and many sonorous sibilant and sticky moist rales were heard. The findings in the left chest were essentially normal. The relative cardiac dullness extended about eight centimeters to the left in the fifth inter-space and three centimeters to the right. The white blood cell count was 18,850 per cubic millimeter.

Cough persisted for three days and was productive of a mucopurulent sputum, which on culture showed a pneumococcus, type IV, present. There were no other symptoms. The temperature gradually became lower and remained normal after the sixth day post operative. The patient was discharged from the hospital on July 30, the fifteenth day post-operative.

#### *X-Ray Reports—*

##### 1. July 17, 1926.

The right side of the diaphragm was very high. There was a heavy fuzzy shadow at the base of the right lung. The heart was very distinctly displaced to the right, as was also the bifurcation of the trachea. The left lung was clear.

##### 2. July 20, 1926.

The diaphragm had returned to its normal position. The area of consolidation on the right base had largely cleared. The heart and trachea were in normal position.

Case 7. A. K.—A robust factory worker, male, aged 41 years, was admitted to the hospital November 1, 1926 complaining of bilateral inguinal hernia. He had not had any recent respiratory infection, and physical examination prior to operation revealed essentially normal findings. On November 2 bilateral herniotomy was performed under combined ether and ethylene anesthesia. One-half hour previously he had been given  $\frac{1}{6}$  grain morphine and  $\frac{1}{100}$  grain atropine hypodermically. The anesthetic was well taken and he reacted well after it. The following day the patient complained of some pain over the upper anterior portion of the chest. His temperature rose to  $102.4^{\circ}$ , the pulse to 104, and respirations to 30. Cough and expectoration of tenacious mucopurulent material developed. Slight cyanosis of lips, nails, and ears was noted. The cardiac apex impulse was palpable  $13\frac{1}{2}$  centimeters to the left of the mid-sternal line in the fifth inter-space. The right cardiac border did not extend beyond the right border of the sternum by percussion. Impairment on percussion was noted over the left lung posteriorly about the angle of the scapula, breath sounds here being of a faint tubular quality, an occasional subcrepant rale being heard. A few rhonchi were heard over both lungs. The leucocyte count was 11,200 with a polymorphonuclear per cent of 86.

The chest was again examined on November 5. At this time considerable improvement was manifest and general condition, cough being less, impairment on percussion was still present over the left lower lobe, breath sounds were distant, and no rales were heard. The apex beat of the heart was now palpable  $12\frac{1}{4}$  centimeters to the left of the mid-line in the fifth interspace. Convalescence from this point on was uneventful, and the abnormal physical signs in the chest gradually disappeared.

#### *X-Ray Reports—*

##### 1. November 4, 1926.

The heart was definitely displaced toward the left. The hilus shadows were rather heavy on both sides. In the lower portion of the left lung



field there was considerable increase in density. Slight old infiltration of the apices was noted.

2. November 16, 1926.

The heart was again in normal position. Some slight infiltration was apparent in both apices, but the lower lung fields were quite clear.

#### CLINICAL FINDINGS

In our patients, all of whom were males, the onset was rather abrupt, occurring within 24 hours after an abdominal operation. The onset was signalized usually by cough and the presence of mucus in the trachea and bronchi, and in about half of the patients, pain in the chest was complained of. Expectoration was mucopurulent in type.

The temperature rose abruptly to 100 or 104. Pulse rates ranged from 90 to 160, and respiratory rates were usually around 40 per minute. The leucocyte count during the first two days of the process averaged 16,770 per cubic millimeter, the per cent of polymorphonuclear neutrophile was 80.

On inspection certain features were striking. The patient lay curled upon the affected side breathing rapidly. Limited excursion of this side was generally noted. Moderate cyanosis was present in the majority of cases, but evidences of intoxication were lacking. A dull note was found usually on percussion, over the right lower lobe, although in one case the right upper and middle lobes were involved, and in one the entire left lung was involved. The breath sounds over the atelectatic area of the lung were of tubular quality in three cases and described as distant in four. Sonorous and sibilant rales were generally heard, occasionally subcrepitant rales.

Serial X-ray plates of the chest were of the greatest assistance in establishing the diagnosis—showing the displacement of the heart toward the side of pulmonary consolidation and demonstrating the high position of the diaphragm on this side—a point which is difficult to clearly establish on physical examination. Quite characteristically the splinting and retraction of the affected side were demonstrated by a narrowing of the inter-spaces on this side and a tendency for the thoracic spine to present a slight concavity in this direction. It has seemed of value to be able to compare such X-ray plates of the chest with plates taken previous, or subsequent to operation, when the chest findings were normal.

#### CLINICAL COURSE

In our uncomplicated cases the respiratory manifestations were very outspoken

for only three or four days. The first two days were marked by a sharp rise in temperature, pulse, and respirations—the temperature generally remaining normal after the sixth day.

All of our patients recovered, as has been the outcome in practically all of the reported cases.

It is apparent that in the cases here presented and in those reported by other authors, the X-ray findings were indispensable in proving the diagnosis. Practically all reports have been those in which the amount of atelectasis was gross enough to produce displacement of mediastinal contents toward the affected side, and elevation of the diaphragm on this side. It seems very reasonable to believe that minor grades of atelectasis may occur that possess similar clinical features, but in which the radiological findings are less striking—perhaps limited to elevation of the diaphragm on the affected side, and a smaller area of increased density in the pulmonary field. We have encountered several cases of this type where atelectasis has been strongly suspected but could not be definitely diagnosed because of the lack of sufficiently gross changes to produce a clear shift in the position of the heart and mediastinum.

The cases presented give no additional information in regard to the mechanism of production of post operative pulmonary atelectasis. But Jackson and Lee<sup>3</sup> have offered a certain convincing evidence supporting the theory that this condition is chiefly due to the absorption of imprisoned air distal to a mucous plug in a major bronchus. They were able to demonstrate by bronchoscopy the occlusion of a large bronchus with mucus. The aspiration of this mucus resulted in an immediate reaeration of the atelectatic area. The other factor in the production of the condition which all admit has been that of limited diaphragmatic excursion which follows abdominal operative procedures.

#### SUMMARY

The records of seven patients who were shown to have post operative pulmonary atelectasis have been presented. The clinical course of these patients has followed the usual rule of a sharp onset within 24 or 48 hours after an abdominal operation, with a few days of decided thermal reaction, tachypnoea, and tachycardia; the patients showing slight cyanosis, and unilateral pulmonary consolidation, with displacement of the heart toward the affected side. Prompt recovery

took place in all. The course was rapid in evolution and was entirely unlike either lobar or bronchopneumonia. The constitutional reaction of the patient did not parallel the extent of involvement of lung tissue.

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## WORD BLINDNESS: DIFFICULTY IN READING IN SCHOOL CHILDREN

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MURRAY DEWAR, M. D.

GRAND RAPIDS, MICH.

The interesting subject of word blindness has recently received considerable attention in medical literature and the effort expended thereon is valuable because it involves prevention of the misunderstanding of certain individuals who have difficulty in reading. The endeavor to scientifically interpret cases of the various degrees of word blindness by the physician would be of great value to the teacher and parents in their attempts to teach the child reading. This paper is but a preliminary effort in an attempt to add a slight bit of information to the slowly accumulating knowledge concerning the subject, and in so doing, we have not only dealt briefly with word blindness but with mirror writing, left handedness and associated speech disturbances as well.

The study of word blindness began with Sir William Broadbent, in 1872, who called attention to cases associated with aphasia. However, according to a recent text on the subject by Hinshelwood, Kussmaul, in 1877, was the first to recognize word blindness as an isolated symptom. Hinshelwood states further that the term word blindness has been used loosely by some and that this has not only given rise to differences of opinion, but confusion. To quote Kussmaul: "By the term word blindness is meant a condition in which, with normal vision, and therefore seeing the letters and words distinctly, the individual is no longer able to interpret written or printed language. With a clear understanding of this definition there is nothing misleading about the term, which I think has now become permanently fixed in our medical vocabulary." Hinshelwood quotes cases to show that the condition is based on definite pathology in the visual

area serving for memory of words and letters.

Orton claims that Hinshelwood's theory is "out of harmony" with the more modern conception of cortex function. Orton in support of his ideas quotes Marie who, in 1922, "called attention to the fact that an infant with right hemiplegia never presents aphasia, and he believes that the temporal region, the gyrus angularis and the surrounding zone are not in any sense preformed centers for language, but brain structures adopted by training to that function.

S. E. Henschen (Brain, Vol. xllx—Part 1) in a recent article on "The Function of the Right Hemisphere of the Brain in Relation to the Left in Speech, Music and Calculation," draws certain conclusions which are worth repeating. He states: (1) That the right hemisphere can best act as a substitute for the left in the hearing and speaking of words. (2) That this capacity of the right hemisphere is less developed as regards reading and especially writing, that is, the higher faculties which are acquired only by education in the civilized nations. (3) That the musical faculty is phylogenetically as well as ontogenetically older than speech and its representation is more uniformly distributed over both hemispheres. Consequently, the right hemisphere can more fully take over the musical function of the left hemisphere when it is damaged than in the case of speech.

In quadrupeds both hemispheres probably have equal and similar functions and are developed to the same degree; it is only in man and perhaps in the erect walking anthropoids that the right arm is developed to a special organ for more complicated acts. This fact appears to indicate the general law that bilaterally gifted animals attain a higher degree of development of the one side only at the cost of reduced faculties of the other side.

The question therefore arises if the right hemisphere is a regressing organ, or if in the right half of the brain there are large cortical fields capable of being educated by training, and reserved for future higher development and possibly for new faculties.

Gordon (Gordon, Hugh: Brain 43:3, 1920) in a study of children in the school for "defectives" in London and Middlesex found that the percentage of left handed children was much higher in these institutions than in the ordinary elementary schools. They averaged 18.7 per cent, or two and a half times as high as in the elementary schools. He also found that 8 per cent of a total of 1,350 were mirror writers, and he offers the hypothesis that something has occurred which has interfered with the proper functioning of the dominant hemisphere.

Sereni states that mirror writing with the left hand is an expression of the symmetry of the build of the body and is illustrated by the fact that any innervation of the muscles of the left hand will give a motion exactly opposite to that resulting from the comparable innervation applied on the right. (Sereni, Enrico; Rev. di psicologia 19:135, 1923.)

Fildes and Myers (L. G. Fildes and C. S. Myers: Brit. J. Psychol. 12:3, 1921) conclude after their study of a six year old child who was left-



handed, and had begun to stutter on being taught to write with the right hand, that a child's early visual experience is probably little concerned with the absolute position of seen objects. His attention is first drawn to form and his powers of recognition are not gravely disturbed whether that form once learned be represented in the ordinary or reversed or inverted position.

Parson (Parson, Blaufort Sims: *Left handedness*, New York, The MacMillan Co., 1924) claims that the "handedness" of an individual depends on ocular dominance (the eye used in fixation) and that ocular dominance determines cerebral dominance.

It is an established fact that mirror writing and left handedness have a frequent association in children who are known to be retarded in their progress in school-work. Samuel T. Orton ("Word blindness" in school children. *Arch. of Neur. and Psych.* Vol. 14, No. 5. November, 1925) has recently published an article on "Word Blindness in Children" calling attention to the above. His material was gathered from children presented for examination who were considered as defective or "who were retarded or failing in their schoolwork." Psychometric readings were taken in 84 of these cases which did not agree closely with teachers' estimates of the children's abilities. These figures are not only interesting but instructive when one considers the possible benefit these cases might receive by more thorough study. The Stanford-Binet test was used and the results obtained were as follows:

PSYCHOMETRIC RATINGS OF 84 DEFICIENT STUDENTS

|                            |             |    |
|----------------------------|-------------|----|
| Very superior intelligence | 120 or over | 1  |
| Superior intelligence      | 110 to 119  | 0  |
| Average intelligence       | 90 to 109   | 31 |
| Dull normal intelligence   | 80 to 89    | 20 |
| Marginal defective         | 70 to 79    | 18 |
| Moron                      | 50 to 69    | 13 |
| Imbecile                   | 25 to 49    | 1  |
| Total                      |             | 84 |

Fifteen of this group had difficulty in reading and their intelligence quotient ranged from 70 to 122, and averaged 92. Two of the cases had progressed to the 9th grade in school and their disability, as Orton states, "was so extreme as to warrant their inclusion in the group of cases described by Hinshelwood under the name of congenital word blindness."

The two cases which were studied by Orton in great detail not only suffered from rather marked degrees of word blindness, but both could mirror write and mirror read and were left handed. In mirror writing, the individual, while holding the pen in the left hand, starts at the right side of the page and progresses toward the left, at the same time writing a

script which is a reverse image and is read easily by holding it before a mirror. As well as the reversal of form in writing, one of his interesting cases wrote at the same time an inverted image. When copying a certain written passage, one of these cases did very well as far as reproduction was concerned, but had practically no conception of what he had copied. However, by spelling out each letter in the words these individuals are sometimes able to gain partial understanding of what they have read. They have thus appealed to their auditory memory. One can readily see that in training these difficult cases in reading, it would be quite essential to make use of and train auditory memory as well as the visual and their sense of touch. The latter has been done by supplying them with raised or blocked letters. Authorities are not quite agreed as to the best method of training in reading, but in the main there are at least two opinions. One is to train the child by the "look and say" method, where the child recognizes the word as a whole rather than the individual letters or syllables composing it. The other method is to teach the individual letters and build up the words from the memory of them. Of course, it must be remembered that little will be accomplished if the child is generally mentally defective, but much may be accomplished if the defect is limited to the visual memory only.

This whole question of word blindness in various degrees, mirror writing, and left handedness is but a part of the important and often discussed subject of aphasia. In the most recent and comprehensive study of that subject by Henry Head in 1920, he proposes to drop such terms as aphasia, alexia, and agraphia and resume the fundamental ideas as proposed by Hughlings Jackson in 1868. The latter "protested against the idea that there was a 'faculty' of speech that could be destroyed by a cerebral lesion. These defects must be considered, he maintained, on the psychical side as defects of the mind and on the physical side as defects of the nervous system." In the discussion of the above paper by Head, S. A. K. Wilson said: "At the same time, I do not see that the 'new' types, so-called, in anyway run counter to the hitherto accepted and familiar sub-divisions." Parsons, a psychologist, maintains that the "neurologists most interested in the subject naturally view it from the anatomical and physiological standpoint, rather than from the psy-

chological, owing to their training and clinical experience."

#### CASE REPORT

I have recently had under observation a patient who was a mirror writer and left handed and who was slow in her school work, partially because of her difficulty in reading and writing. Her history and examination are as follows:

A. M., female, age 14. High school student, came to the clinic complaining of "spells of unconsciousness."

**Family History**—Father living and well. Age 60. Mother living and well. Age 51. One brother and three sisters all living and well. One sister died in infancy of dysentery. There was no epilepsy, chorea, migraine, insanity, "nervous breakdowns," tuberculosis, cancer, diabetes, kidney or heart disease in the family.

**Past History**—She is the youngest child of the family. Was full term, born with instruments. There was considerable trauma to the head, so that it had to be wrapped in cotton for a number of days following the birth and there was also a history of a spasm shortly after birth. She was breast fed, and had intestinal troubles. She had measles, whooping - cough, chicken - pox and mumps, but was never delirious or had any brain symptoms with any of them. Has had occasional sore throats. No serious head injuries.

**Menstrual History**—Began at 13, and she has been irregular except for a period from January, 1925, to August, 1925. At times her periods last from two to ten days.

**Present Trouble**—Her first convulsive attack occurred at night in March, 1922, and all of the succeeding attacks up until August, 1922, were nocturnal. The convulsions are generalized. She froths, and bites her tongue, and at times has had involuntaries. Has fallen and injured herself in several of the spells. When she slips in walking or any sudden moving object comes up on the right side of her body, that is appearing in the field of vision of the right eye, she believes it predisposes toward an attack. In the attack her eyes and head usually move toward the right and the right arm will begin to jerk before the rest of her body. The first neurological examination was as recorded:

Patient normal size and weight, and answered questions promptly and intelligently. She was not emotionally disturbed. No hallucinations or delusions. Memory and speech are normal. Gait and station, normal with eyes open or closed. No atrophies or deformities. Hair, skin and nails normal. No tremors. No ataxia. The parents, at this point, volunteered the information that she wrote left handed and as a child had a tendency to spell words backward, and to start writing at the right side of the page.

**Cranial Nerves**—There was no facial asymmetry or paralysis. She protruded the tongue straight and the tongue movements were normal. Jaw movements normal. Palpebral fissures were equal, and the pupils were equal, round and symmetrical. They reacted promptly to light and accommodation, and in consensual reflex.

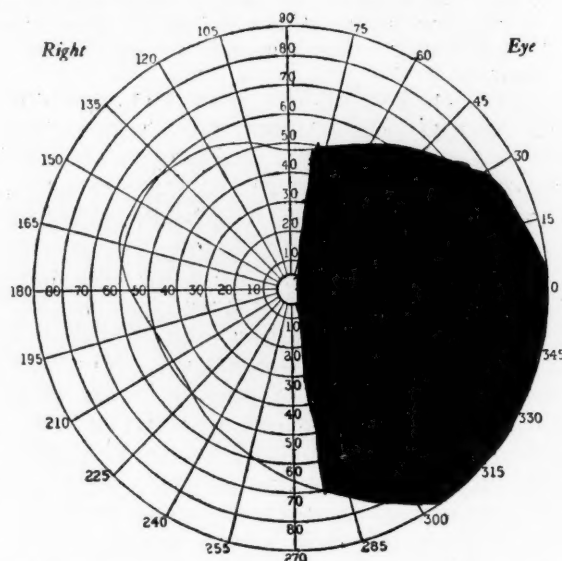
**Deep Reflexes**—All present, equal and prompt. There was no Babinski. No clonus.

**Sensation**—There was no change from normal in sensation to pin-point, light touch, vibration, or motion and position.

Her physical examination was entirely within range of normal. It was noticed that the scapulae were scaphoid.

She was referred to the department of ear, nose and throat, and the only pathological finding was "chronic tonsillitis."

The eye department reported her visual acuity as 6/15 in the right eye and 6/5 in the left. The fields showed a temporal scotoma in the right eye and the left was normal. The fundi were negative.

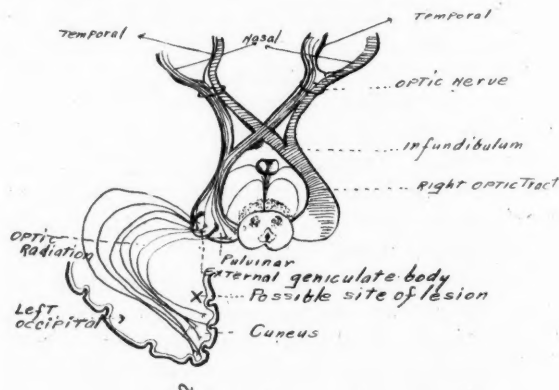


Temporal hemianopia in the right field of vision, which was consistently found in several examinations.

The X-ray of the cranium was as follows: "Stereo films of the head show a slight deepening of the convolutional impressions, but otherwise negative. The sella is large but within normal limits and shows no bone erosion. The cervical spine are also negative."

**Gastro-Intestinal X-ray**—Barium meal showed no deformity of the stomach or cap. There was no six hour retention. Greater curvature slightly below the anterior-superior spine. Twenty-four hour progress was also normal, with a marked spasticity of the entire colon. Appendix was visualized, but was not definitely tender.

**Laboratory Work**—The urine and blood showed no changes from normal, and the Wassermann was negative.



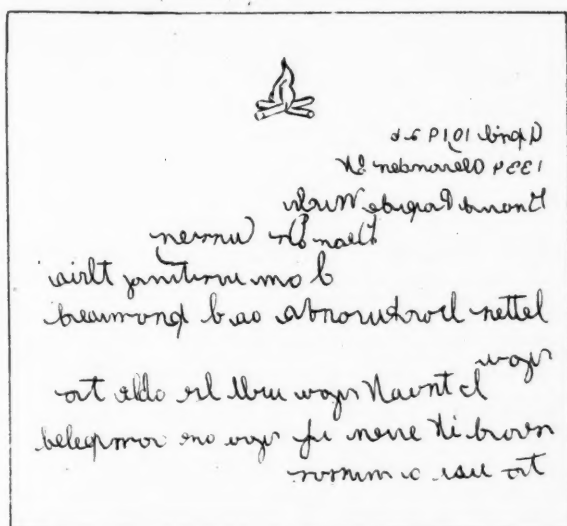
The patient returned about six months later than the date of her first entrance. The fields and fundi were again examined and found to correspond exactly to the first examination. The defect in the right field of vision amounts to a



temporal hemianopsia for large objects and covers the right (entire) field for small objects. The absence of any changes in the fundi places the lesion somewhere in the optic radiation and back of the optic nerve nuclei. It is more than likely located in the gyrus cuneus on the mesial surface of the left occipital lobe and we know, moreover, that the whole optic radiation on that side is not involved, else there would be a nasal hemianopsia in the field of vision of the left eye.

The patient gave further history on her second visit of having failed a grade in school on account of her difficulty in reading and writing. When in the lower grades, she would write from right to left and the teacher would sometimes hold a page of the text book up to the light and reverse the image in order for her to read. She had a marked tendency to mispronounce words such as window-sill and call it "sindow-will," showing again a tendency toward the reversal of the visual image of the letters in the words. Her father states that her arithmetic was always difficult for her because she had trouble in interpreting the problem when reading it herself, but if he read it to her, she "got along all right." When in the office, she showed herself proficient in reading the mirror image of written words.

The following is a letter written with her left hand. This letter can be easily read holding it before a mirror.



She was referred to the assistant supervisor of special classes at Junior College, (Miss Emma E. Dennison), who gave her the several intelligence tests and the results were as follows:

First we gave the Binet test. Result: C.A. 15-5, M.A. 11-7, I.Q. 75.

Second, the Pintner Patterson Performance test which requires no use of language. Result: C.A. 15-5, M.A. 11-5, I.Q. 71.

Third, a National Intelligence test, a group of five tests. Subject is given directions for each test, then allowed a certain length of time on each test; one is arithmetic, others are sentence completion tests, true or false tests, etc. Result: C.A. 15-5, M.A. 12-2, I.Q. 79.

Fourth, Thorndike-McCall Reading Scale for the Understanding of Sentences. This test consists of a series of paragraphs with questions under each. Subject can re-read the paragraph as many times as they wish to answer the questions. Thirty minutes is allowed. Alice finished in twenty-five minutes. Result of this test would

give her a reading quotient of 90. This is low average and shows ability of about 12-year-old.

This case is interesting in that it is a striking example of the difficulty that certain children have in reading and writing and whose difficulty is based on organic brain lesions. Attempts to teach some of those cases to write right handed might easily, and very often does cause such speech defects as stuttering and stammering, although this particular case was spared in that respect. It is more or less natural consequence for a teacher to misunderstand the reason for the apparent stupidity in reading and writing of a child belonging to this class and on the other hand perfectly natural for the child to either resent the criticisms of the teacher and perhaps the family, and assume either a negativistic attitude or one of inferiority or both. Orton suggests that the proper method of teaching these individuals "would be that of extremely thorough repetitive drill on the fundamentals of phonic association with letter forms, both visually presented and reproduced in writing, until the correct associations were built up and the permanent elision of the reversed images and reversals in direction was assured." However, there are those who disagree with him and favor the method of teaching wherein the child learns to recognize the word as a whole rather than a composite group of so many letters.

There seems to be no decided justification for the opinion that either side of the brain is a preformed area for either speech, reading or writing, music or calculation. However, one must make a mental reservation in consideration of the oft quoted work of Pavlov who in four generations trained animals to answer a bell in call for food, reducing the number of times from 300 in the first generation to 10 in the fourth, before they would complete the reflex act. As Marie has pointed out, children suffering early in infancy with a right hemiplegia do not develop an aphasia. Moreover, when an infant begins to use its hands as in reaching for objects, the motor co-ordination is equally as good on the right side as the left. The child's playthings are at once naturally placed in the right hand by the parents, and all imitated movements tend toward the dominance of the use of the right side of the body and the left cerebral hemisphere. By the time the child has reached school age, it has already acquired speech and either right or left handedness, usually the

former. In case there has been a congenital or an acquired defect of the left cerebral hemisphere, or a defect in vision sufficient to interfere with the right eye as being the fixing eye, then one can quite reasonably propose these defects as the basis of the interference of normal associative processes between speech, reading and writing. The use of the left hand and the ability to mirror write as well as to mirror read are all, as Sereni (Sereni, Enrico: *Rev. di psicologia* 19:135, 1923) has pointed out, an expression of the symmetry of build of the body. "This is obvious," as he states, "when we consider that, so far as the motion mechanisms are concerned, any innervation of the muscles of the left hand will give a motion exactly opposite to that resulting from the comparable innervation applied on the right." However, as Orton has said, "This does not take into account the sensory images which serve the pattern for writing from memory." One wonders at this point, if there is not a stronger impression on the reversed image in the right side of the brain as well as a stronger association for the reversal of movements due to the injury of the left cerebral hemisphere and the difficulty thereby in the memory for the normal image as well as normal associated movement.

It is the opinion of the writer that neurological diagnosis has not developed as yet to the point where we can in all cases discern the cerebral lesion which might produce a tendency toward mirror writing, and left handedness. Our case shows the value of taking visual fields as fundus examinations and no mention has been made in other papers of the procedure as a part of their routine in examination of these cases. The case is also unusual in that it strongly suggests the possibility of a localized area in the visual cortex for the nasal half of one retina and another for the temporal half. This, to my knowledge, has not as yet been proven. Brouwers' recent work on the primary optic centers, carried on by biological methods, suggests the possibility of determining the true representations, in the cortex, of the optic radiations.

#### THE ORAL ADMINISTRATION OF GLUCOSE

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The intravenous administration of glucose has been familiar to the medical pro-

fession for a long time. While indisposed a few months ago, the physician who attended me suggested the administration of glucose by mouth as a means of nutrition, as making the least possible demands in the way of digestion and absorption upon the impaired alimentary tract. I have since looked up the literature on the subject of the oral use of glucose and summarize the findings so far as I am able to obtain them in the literature. The London *Lancet* of February 28th, 1925 contains an article entitled "The Oral Administration of Large Quantities of Glucose and Its Therapeutic Uses", by Bennet and Dodds, Middlesex hospital, London, England. Bennett is assistant physician as well as assistant professor of physiology, Middlesex hospital, and Dodds is lecturer in biochemistry and chemical pathologist to the same institution.

The glucose used is the ordinary commercial variety which may be purchased at any factory where candy is manufactured. The ingredients of the mixture are as follows: Commercial glucose, one pound, water one quart, and two lemons. The glucose is dissolved by stirring into one quart of boiling water. The juice of the two lemons is added and the mixture is boiled for five minutes. This gives us a lemonade, or the glucose solution may be flavored by adding the juice of half an orange to a tumbler. Fruit juices of various kinds also may be used to flavor. A person may drink daily over a pound of glucose prepared in this way. The commercial glucose is a by-product in the manufacture of starch. There are other forms of glucose, the crystalline and amorphous forms presumed to be chemically pure, but the commercial variety which is in the form of a viscous or semi-solid substance has the advantage of cheapness when used in large quantities. About the only contra-indication to the uses of glucose in this way would be a pathological glycosuria.

It is well known that carbo-hydrates taken into the body are changed into glucose before they can be utilized by the tissues. When glucose is absorbed it is immediately used up or if ingested in excess of the power of the body to absorb it, it is stored up as glycogen. The ultimate end products of glucose metabolism are water and  $\text{CO}_2$ , so that in any quantity taken no strain is put upon the organs of excretion; hence its value in the dietetic management of renal insufficiency.

The article referred to in the London *Lancet* is summarized as follows:

1. Commercial glucose is a substance which allows large quantities of glucose to be administered in palatable form at low cost.

2. Its exact chemical composition is difficult to determine, but it is shown to contain arsenic in negligible traces only and to have a calorie-value of about 1000 large calories per pound.

3. Normal persons can assimilate quantities of 200-522 g. in one dose without passing more than a trace of sugar in the urine.

4. The main effect on subjects who took 500 g. in this manner were (a) diuresis, (b) a rise in blood sugar not greater than what occurs after a normal meal, (c) no change in the respiratory quotient, and (d) a marked hypnotic effect in two cases.

5. Large quantities of sugar taken in this manner appear to be detained and diluted in the stomach.

6. There is evidence of dilution of blood during such experiments.

7. Large quantities of glucose have been added to the diet as a therapeutic measure in many clinical cases, particularly in (a) acute infections; and (b) cases with marked under nutrition. Distinct benefit appears to have resulted and no ill-effects have been observed. In some of these cases the glucose administration was accompanied by small doses of insulin.

Among the indications for the oral administration of glucose in addition to renal disease already mentioned is severe pneumonia, when digestion is at a standstill. In these cases glucose is easily absorbed and may keep the patient going until the lysis or crisis is reached.

It is needless to say it is also useful in those diseases in which loss of weight and emaciation are the most prominent symptoms. There are numerous groups of diseases of the alimentary tract in which under-nutrition is the outstanding feature, loss of weight has probably aggravated the symptoms by absorption of the abdominal fat.

Its use is suggested as a dietary adjunct in the after treatment of gastric or duodenal ulcer particularly where hemorrhage has been a complication; inasmuch as the glucose is in complete solution it causes very little motor response from the stomach in its passage into the intestines.

Parenthetically I might say that in a recent voyage across the Atlantic the ship physician on one of the Canadian trans-Atlantic steamships, told me that he used glucose quite freely in cases of sea-sickness. His explanation was that the labyrinthine disturbance caused by the motion of the boat producing a deficiency in blood sugar which was responsible for the disagreeable symptoms associated with sea-sickness. The labyrinthine condition could not be affected directly by ordinary therapeutic measures so that his method was to make up for the sugar deficiency which

was the direct and immediate cause of symptoms, by the administration of glucose which he gave in dram doses of the amorphous form. I pass on his method and suggestion to any one contemplating an ocean voyage.

Detailed information and comment on the oral administration of glucose will be found in articles named in the following bibliography:

- (1) Bennett, T. Izod, "The Therapeutic Uses of Carbohydrate Diets," *Lancet*, July 5, 1924, p. 6.
- (2) Idem, "The Oral Administration of Large Quantities of Glucose," *Lancet*, February 28, 1925, p. 429.
- (3) Cathcart, W. R., "What is Glucose?" *Therapeutic Gazette*, August, 1924, p. 540.
- (4) Taylor and Hulton, *Jour. Biolog. Chemistry*, 1916, xxv, 173.
- (5) Woodyatt, Sansum and Wilder, *Jour. Amer. Med. Ass.*, 1915, lxxv, 2067.
- (6) Cori, Carl F., *Jour. Biolog. Chemistry*, December, 1925, lxxvi, 691.
- (7) Idem, p. 713.
- (8) Talbot, F. B., *Boston Med. & Surg. Jour.*, 1925, p. 1000.
- (9) Rudolph, *The Can. Med. Ass. Jour.*, July, 1926.

### THYROID GLAND DISEASES WITH RADIUM TREATMENT IN THYROTOXICOSIS\*

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The thyroid gland, with its distinctive function in the group of ductless or endocrine glands, has awakened an intensive interest among research workers in preventative medicine, as well as those interested in the control of the many pathological conditions it is heir to.

The dysfunctioning type and enlargements of the thyroid gland can be grouped as follows:

1. HYPOTHYROIDISM.
  - (a) Cretinism.
  - (b) Myxedema.
2. HYPERTHYROIDISM.
  - (a) Thyrotoxic adenoma with or without exophthalmos.
  - (b) Exophthalmic goiter.
3. NONTOKIC ENLARGEMENTS.
  - (a) Adenomas—nontoxic.
  - (b) Adolescent goiter.
  - (c) Colloid goiter.
  - (d) Functional enlargement (simple).

As we are to discuss the treatment of the toxic type of the thyroid gland dysfunction, it is well to deliberate somewhat on the nontoxic enlargements, for differential purposes.

With the exception of the primary exophthalmic activity, there is always a noticeable enlargement of the thyroid gland. The gland may or may not be noticeably

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enlarged in the exophthalmic type, yet an X-ray shadow often shows a substernal proliferation or an enlarged thymus gland. The histological study of the thyroid gland, with its abundant blood supply, nerve control, location and physiological function, is so important that the discussion of disease or dysfunction will lead to the question of immunity, brain cerebration, heat control, and, in fact, the regulation of metabolism.

Granting that a simple enlargement with a slight activity is caused by a sudden demand for the gland hormone to combat an infection, until an acquired immunity is established, or again, that the infection has a specificity to cause an activity of the glandular cells, should the demand be repeated or become continuous, and if there was a lack of the element iodine to hold the balance, the simple compensatory enlargement would be stimulated by the rich blood supply to a hyperplasia of glandular tissue, which eventually could become a hypertrophy with cystic formation. The more or less chronic enlargement denotes the passing of a functional physiological activity to a pathological condition. The compensatory effort may strike a balance and hold in reserve sufficient quantities of split-up iodine product to form thyroxin and stabilize the activity, but leaves the gland permanently enlarged.

The evidence of iodine insufficiency as a factor in the activity of the thyroid gland is so conclusive at present that the element is given to persons predisposed as a prophylactic measure against hyperactivity. Whether the calcium content of the blood with the low iodine intake in individuals of certain localities is another factor, time and research will reveal.

The inferior sympathetic cervical ganglia plays such an important part in the control and distribution of impulses to the heart, blood vessels, vasomotor nerves of the upper trunk which are connected with those of the lower extremities, also the voluntary and involuntary muscles, that it has to be considered when you investigate the many symptoms in hyperthyroidism. Disturbances or irritation of the ganglia may result from (a) pressure due to enlargement of the thyroid gland; (b) increase in the diameter of the inferior thyroid artery; (c) infection in the neck or pharyngeal region; (d) toxins showing an affinity for the thyroid circulation; (e) general disturbances of the sympathetic nervous system from toxins, faulty diet, emotional states, etc.

Lack of iodine as the primary cause of a simple activity, in a functional emergency to hasten the manufacture of thyroxin, will so unbalance metabolism that clinical evidence of disease is manifest. The first subjective symptom of hyperfunction is rapidity of heart action with exercise, during digestion, and during the menstrual period in females. General fatigue follows as a close second symptom and may be caused by the toxemia, tachycardia or faulty metabolism. The objective manifestations are enlargement of the thyroid gland, tubular breathing, pulsation in neck and tremor of hands and fingers on extension. The progressive type shows other well known clinical symptoms, as exophthalmos, facial expression of anxiety, skin rashes, profuse sweating, pruritis, choking sensation and fever; nutritional evidence, as loss of hair, striation of nails and gradual loss of weight. Diarrhoea and a low sugar toleration with an acidosis are often sequelae. Confirmation of hyperactivation of the thyroid gland, after the above symptoms have been interpreted, can be obtained by a metabolic test.

Blood and urine examinations reveal diseases, while bacterial differentiation of excreta prove existing conditions, but with metabolism as a laboratory aid, it not only proves the existence of disease but gives an estimate of the extent or degree of activity. The last factor has a clinical importance in the treatment of hyperthyroidism, for it teaches that a metabolism of a plus 60 to 80 is more grave as to prognosis than one of plus 10 or 20. Furthermore, metabolic estimation is of utmost importance in the follow up results after any method of treatment. Experience and clinical results should be the guide in recommending therapy for any of our human ailments. Criticism and prejudice of any single method of attack should be left with the last century. Our early teaching of surgery alone in goiter and other conditions as the only remedy after medicine has failed, has done much to frighten the laity to postpone interviews with the regular men and caused them to seek cults without any scruples whatsoever. In reporting 400 cases of toxic goiter treated with radium in over six years, it gives some personal gratification to know that very few patients were dissatisfied, none died as a result of the treatment, but five died in spite of it. All of these five died within two months following the treatment; two lived a week, another three weeks,—much too short a time

to receive any benefit from the radium. With one exception (which was moribund) all cases seeking relief were treated. The two cases that lived only a week were both toxic to the extent of psychosis, were hilarious, maniacal, suspicious, and refused nourishment in any form. One case lived seven weeks and developed icterus. The liver at autopsy was four inches below the costal margin. Seven cases, to my knowledge, have had thyroidectomies done after the toxic symptoms have abated, to remove the large adenoma. One of the cases died a few hours after operation, from cerebral embolus. I have learned of two cases that have had relapses of former symptoms.

Reduction in the size of a large adenoma after treatment is in direct proportion to the amount of hypertrophy and firm fibrous tissue present. The soft cystic type, with increased glandular and lymphoid tissue, decreases following radium treatment, but the hard nodular ones do not respond. The firm nodules are fibrous tissue, the result of an organized blood clot within the colloidal cyst.

Clinical judgment in the use of radium for toxic goiter is of foremost importance in all cases. It is a serious error to use too small an amount on the assumption that the same results are attainable from a long exposure with a small amount as would occur from a short application of a large one. The size of the gland, amount of subcutaneous fat and condition of the patient, should be the guide as to the amount of radium, but use at least 100 milligrams.

There is a temporary alleviation of symptoms for about two weeks following the treatment, but with the reaction they all return, so that other symptomatic relief may be necessary for a time. An ice collar will control the blood supply, and sedatives of bromide by mouth or in suppositories will alleviate the nervous condition. Alkaline baths relieve the pruritis and sweating, while alkalies internally will help the nausea and prevent the acidosis.

Convalescence is slow, but progress is noted after the reaction period. The metabolic rate is increased for the first few weeks, but many cases show a normal metabolism in six months. The tachycardia is the last symptom to respond but much depends on the question of endocardial changes, often due to a long standing toxemia.

The rapid control of the toxic symptoms after radium treatment would support a

hypothesis of a change in the character of the thyroid gland secretion by direct effect on the secreting cells. Diminished secretion and reduction in size of the gland would result from the action of the rays on the glandular and lymphoid tissue, also from thrombosis due to the destruction of the endothelial lining of the smaller blood vessels.

The results of radium therapy on toxic goiter are so well established after ten years' experience, that only a true specific or a panacea will lessen our confidence.

Case No. 956. Male, age 36 years. March 5th, 1924. Complaint, (1) trembling hands and limbs; (2) general fatigue; (3) loss of weight; (4) nervousness.

Family History—Paternal father and mother died of cancer of stomach, and one sister of his father died of cancer of the breast.

Past History—Had tonsilectomy twelve years ago. Never had any serious illness.

Present History—Always lived in central Michigan. Had a small egg-shaped lump over trachea since he was 12 years of age but never had any symptoms until four months ago, when he was given medical treatment for the enlarged gland. It became smaller in size when the treatment was first instituted but soon increased in size and he developed symptoms of a toxic type. Never had a rash or diarrhea, but lost 26 pounds in three months.

Examination—Eyes negative. Many abscessed and decayed teeth. Right tonsil is red, injected looking, is level with and adherent to the pillars and has many infected appearing crypts on its surface. Left tonsil larger than the right, very firm but has a smooth surface.

A large cystic adenoma of right lobe and isthmus of the thyroid gland the size of an orange that has pressed the trachea an inch toward the left side. The enlarged lobe is soft, with the exception of a hard nodule at the isthmus border. It lies behind the sternomastoid muscle at the posterior border and completely envelopes the trachea. The left lobe is small but has a coarse granular feeling.

The apex beat lies to the left of the nipple line, yet no heart murmurs are detected. Radial pulse 100. Apex beat 100. Systolic blood pressure 120, diastolic 50. Weight 134 pounds. Metabolism, plus 19. Tremor of hands, fingers, limbs and all the muscles of the body. When standing, the knees trembled like a rigor.

Diagnosis—Toxic adenoma.

Prognosis—Good.

Treatment—Ninety milligrams of radium element, properly screened, was applied over each lobe of the thyroid gland for ten hours.

September 14th, 1924—Had not been able to work for two months before the treatment but secured an outside position one month afterward and has now been working for five months. Feeling very well; has no trouble with breathing, heart, nor has he any of his old symptoms. The extreme tremor of all the muscles gradually subsided, and he claims that he is back to normal.

Examination—Tonsils smaller, but still looking red and injected, probably being infected from the bad condition of the teeth.

The left lobe of thyroid normal in size, the right still large, boggy and has the hard nodule



at the isthmus. Neck measurements about half an inch smaller.

Pulse rate 60, systolic blood pressure 120, diastolic 80. Weight 149 pounds. Metabolism, minus 2.

There is no tremor of hands or limbs and he has just driven his car 75 miles.

NOTES:—

- (1) Absolutely no toxic symptoms.
- (2) Gained 15 pounds in weight.
- (3) Diastolic blood pressure was 50, and is now 80.
- (4) Pulse and heart beat now 60, and was 100.
- (5) Complete relief from all tremor.

Case No. 941. Male, aged 23 years. January, 1924. Complaint, (1) pressure on neck; (2) nervousness and shortness of breath.

Family History—Father died at 37 years of tuberculosis.

Present History—At 16 years of age he noticed an enlargement of his neck, but did not have any symptoms until two years ago. Over exertion or exercise caused his heart to beat very fast and he became dyspnoeic. His collars became tight so that he had a pulsation in his neck and frequently had headaches.

Examination—Right eye slightly larger than the left, otherwise negative.

Right lobe of thyroid about the size of a baby's fist, lies beneath the sternomastoid muscle, is quite soft, without cysts and becomes a part of the enlarged and cystic isthmus. The isthmus is one and a half inches wide, causes tracheal pressure and has a small cyst at the upper border. The left lobe is soft, extends beneath the sternomastoid muscle, but is smaller in size than the right one. The whole thyroid gland lies well behind the upper border of the sternum, and has a full pulsation with each heart beat. No bruit heard over either lobe. Area of heart's dullness enlarged, accentuating blood pressure 108, diastolic 50; weight 155 pounds. Metabolism, pulse 22.7.

Hands and fingers tremulous on extension; palms cold, clammy and sweating; nails straited. Radiograph examination showed an enlarged thyroid gland which is partially substernal.

Diagnosis—Toxic adenoma with a beginning exophthalmos.

Prognosis—Good.

Treatment—One hundred ten milligrams of radium properly screened was held over each lobe for ten hours.

August 12th, 1924—Less than seven months ago he had a radium treatment. He began to feel better in two months; was less nervous, had gained in weight and had no trouble in breathing.

The general improvement was gradual and today he says he "never was better in his life."

Examination—Only a very slight difference in eyes. Right lobe of thyroid large and boggy but no cysts or nodules felt. Left lobe quite soft and smaller in size. Isthmus still wide, but softened and even the cyst at upper border is less tense.

Measurements of neck reduced only a half inch.

Heart sounds normal, except that the second one is slightly accentuated. Pulse 66, systolic blood pressure 118, diastolic 70. Weight 163½ pounds, or a gain of eight and one-half pounds. Metabolism, minus 2.9. No tremor of hands or fingers, but palms still moist.

NOTE:—

- (1) Toxic symptoms have all disappeared.
- (2) No evidence of hyperactivity.

(3) The subnormal metabolism with increased weight when he had been working five months, are conclusive evidence of toxic control.

Case No. 999. Male, age 37 years. September, 1924. Woodworker by trade. Complaint, (1) rapid heart action; (2) fatigue; (3) nervousness.

Residence—Lived in London, England, until 1913, then moved to Ontario, Canada.

Family History—Negative.

Past History—Had an accident eleven months ago to his left forearm, which evidently caused the thyroid activity.

Present History: On October 4th, 1923, a piece of wood flew off a circular saw, hit and entered his left forearm. A small splinter remained for seven weeks. The worry of the wound not healing and the pus and infection as evidenced by the sinus drainage, were evidently the exciting factors. Following the operation (which was done under a general anesthetic) he was very nervous, could not sleep, and the heart action became rapid. Has been under observation and treatment for months, is somewhat better but not able to resume his work. Has some headaches, perspires freely so that he has a rash, tires easily and is very uncomfortable.

Examination—Eyes normal in size, with negative muscle control. Right tonsil infected with a large crypt at the center. Tongue coated and tremulous.

Right lobe of thyroid gland soft to palpation. Isthmus wide and firmly tightened across the trachea. Left lobe also slightly enlarged.

Upper circumference of neck, 14¼ inches; middle circumference, 15¼ inches, and lower 15½ inches.

Area of heart's dullness enlarged with apex beat in nipple line. Pulse and apex beat 94 at rest, but on exertion 160.

Systolic blood pressure 122, diastolic 70; metabolism puls 13.

Tremor of hands and fingers on extension. Skin blotchy with profuse perspiration.

Diagnosis—Toxic adenoma without exophthalmos.

Prognosis—Good.

Treatment—One hundred thirty milligrams of radium, properly screened, held over each lobe of the thyroid gland for 10 hours, making 2,600 milligram hours.

November 15th, 1924. Has been able to work six days every week since he had the treatment, two months ago.

Is still nervous when approached quickly or by sudden news, and there is some tremor of the fingers.

Pulse rate 80, and he has gained 12 pounds in weight.

March 2nd, 1925—Has been feeling very well for weeks. Has none of his nervous symptoms. In fact, there is no evidence of the former activity.

Metabolic rate six months after treatment is plus 5.

CONCLUSION

The control of symptoms, reduction in size of gland, increase in body weight and normal metabolism are sufficient evidence to convince the most skeptical of the merits of radium therapy.

REPORT OF TWO CASES OF  
TULAREMIA IN MICHIGAN

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Tularemia has been recognized as a disease transmissible to man since Vail<sup>1</sup> in 1913 definitely demonstrated a case of bacillus tularensis conjunctivitis by bacteriologically isolating the organism and by guinea pig inoculation. It was not, however, until 1921 that the entity known as "rabbit fever" and declared to be fairly common among market men who dressed rabbits, was designated, after demonstrating the agglutination of the bacterium tularensis by the serum of these patients, as tularemia. Since that discovery was made in Washington, D. C. in 1921, more than 200 cases have been authentically reported. According to information received from the Hygienic Laboratory in Washington, D. C. and contained also in the report of Francis<sup>2</sup>, showing the geographic distribution of tularemia, there has not been before this an authentic case reported from Michigan. We, therefore, believe that a report of these cases may be of interest.

Case 1. A white male, age 27, married, a chef, was admitted to the hospital January 3, 1927, complaining of a painful swelling in the right axilla. He stated that he had always enjoyed good health until five weeks before admission, when he became quite ill with an acute febrile disease. He had a high temperature and "aching pains" in the muscles and joints, with general malaise. He was confined to his bed for three weeks and at the end of the first week, noted a painful swelling in the right axilla. The first of two physicians to see the patient during the course of the febrile attack thought that he had pneumonia while the second made a diagnosis of typhoid fever, although no serological tests or blood cultures were made. There was no diarrhea during the illness and the patient stated that he had been constipated since soon after the onset of the disease. He lost 10 pounds in weight during the three weeks that he was confined to his bed.

No history of a recent infection about the hands or arms could be elicited. Six months before admission he had an acute infection in the right hand and forearm which he attributed to a scratch from an ice hook. There were red streaks up his arm to the elbow and he was away from his work for about two weeks. He did not, at this time nor in the months immediately following, have any painful or tender mass in either axilla. As he had completely recovered from this infection more than five months before his admission to the hospital, it was not believed that there was any direct connection between it and the complaint on admission.

The physical examination showed the patient to be a well developed, well nourished, adult white

male, 5 feet 4 inches in height, weighing 134 pounds. The skin was dark, complexion sallow, and the patient looked sick. The tonsils were large and oedematous and there was one crowned tooth and some pyorrhea. There was no evidence of chest or abdominal pathology and the reflexes were normal. In the thoracic wall of the right axilla there was a tender, firm, indurated mass of about 3 to 5 cm. in diameter, in which there was a very slight increase in local heat. The skin over the tumor was slightly reddened, brawny and not adherent to it. There was no evidence of the abscess pointing and the mass was not definitely fluctuant. There was a leukocytosis of 13,700 with 67 per cent polymorphonuclear leucocytes at the time of admission.

The patient was admitted to the hospital with the diagnosis of axillary abscess. About an ounce of pus of a caseous appearance was expelled from the incised mass. The cavity was well explored with the gloved finger and a small rubber drain was left in. Hot boric compresses were ordered. The following day the tenderness and induration had decreased, the drainage was free and dry dressings were applied. Culture from the abscess material was negative in 18 hours, but in 48 hours it showed a slightly green producing streptococcus. During the three days stay in the hospital the temperature rose steadily from about 98.6° each morning to 101° during the afternoon. The incised area healed quite readily, however, and his progress has been satisfactory.

The history of the appearance of this swollen mass in the axilla within a week after the onset of an acute febrile disease of a somewhat doubtful nature naturally rather focused our attention upon the febrile disease itself. The patient was again questioned regarding any infection of the hand more recent than that of six months before admission, but no such history could be obtained. His description of the acute febrile attack with the appearance of the painful and tender mass in the axilla, the persistence of the abscess after four weeks with no evidence of pointing, the caseous character of the contents of the abscess, and the continued temperature and malaise formed a clinical picture which was strikingly similar to that described by Francis<sup>2</sup>, <sup>3</sup>, and led to the impression that this was a case of glandular tularemia.

In an attempt to confirm the impression, the patient was questioned closely to determine, if possible, some plausible etiological factor. It was learned that he had dressed rabbits upon two occasions this winter, the most recent being only a few days before the onset of the acute febrile attack of five weeks prior to admission. Blood was then taken for culture and for serum agglutination. The serum was forwarded direct to the Hygienic Laboratory in Washington, D. C. It was reported that it agglutinated the bacillus tularensis in



dilutions of 1 to 1280, definitely confirming the diagnosis of tularemia.

We were interested in determining, if possible, the source of the supply of rabbits from which the patient apparently received his infection. A state game law in Michigan prohibits the sale of rabbits killed or trapped in the state, and presumably all rabbits purchased here are shipped in. We were able to trace the rabbits to the market from which they were bought, where it was found that these rabbits were part of a large shipment from Missouri. It was not possible to determine from what particular locality in Missouri they had originally been taken.

Case 2. A white woman, aged 40 years, came to the hospital complaining of a lump in the axilla and of feeling tired all the time. Her physical examination showed the presence of multiple adenomata of the thyroid gland with rather marked evidence of hyperthyroidism. In addition to this she had a moderate grade of hypertension and a fluctuant area in the right axilla. Her basal metabolic rate was plus 73 per cent. She had a normal white blood count and her temperature was normal. Questioning brought out the fact that she had had an acute illness with chills and fever beginning about five weeks previous to her admission which immediately followed the development of a small vesicle on her right middle finger. She gave no history of having had an injury to this finger. Shortly after the onset of this illness she developed two fluctuant areas in the region of the elbow on the anterior aspect of the arm and another mass in the lower right axilla. During this illness she was a patient at another hospital for one week, returning home after the chills and fever had subsided. Two weeks later the vesicle on the finger and the two fluctuant areas on the arm were incised and were found to contain pus. The incisions healed quite promptly but she continued to be quite weak or as she expressed it "felt tired all the time." Her general condition remained practically unchanged during the few weeks previous to her admission.

The fluctuant area in the axilla was incised and drained and found to contain about an ounce of thin, yellowish pus markedly different in character from the thick caseous like pus of case one. Some blood was sent to the Hygienic Laboratory in Washington, D. C. and the serum was reported to agglutinate in bacillus tularense in dilutions from 1 to 320. While the agglutinating power of this serum was markedly less than Case 1, the findings were definitely diagnostic of tularemia. Further questioning brought out the fact, that on several occasions during the several weeks previous to her acute illness the patient had cut up rabbits for cooking after they had been cleaned and skinned in the market. It is impossible to determine, in this instance, the exact source of the rabbits. The incised area healed quite promptly following the incision and drainage.

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## FETAL DEATH DURING PREGNANCY DUE TO UMBILICAL CORD AROUND THE NECK\*

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Although strangulation of the child during labor by coils of umbilical cord about the neck may not be uncommon, fetal death before labor from this cause seems to be of rare occurrence. Browne<sup>1</sup> collected five instances from the older literature, and Grad<sup>2</sup> reported another in 1916. The following case is the only one to occur in this hospital for a period of nearly five years:

M. F., white, aged 35, primigravida. The patient was first seen on January 10, 1925 with the history of the last menstrual period having occurred October 27, 1924—calculated expected date of confinement August 3, 1925. The past history was essentially negative, and physical examination showed nothing noteworthy except cardiac extra-systoles occurring every six to eight beats. Pelvic measurements were normal, and the blood Wassermann reaction was negative with plain and



FIG. 1

Two loops of cord constrict the neck of the macerated fetus.

Kolmer antigens. The size of the uterus corresponded to the period of amenorrhea.

Except for an attack of pyelitis in April, which quickly cleared up with large doses of bicarbonate of soda, pregnancy was uneventful until the beginning of the ninth lunar month. On June 12, 1925 the patient reported that five days previously there had been unusual fetal activity for several hours, then complete cessation. She had lost four and one-half pounds in two weeks, and fetal heart sounds could not be heard. At the patient's request, labor was not induced although the X-ray confirmed the diagnosis of fetal death. Subsequent observations showed slight diminution in

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the size of the uterus and further loss of weight.

Spontaneous labor of seven hours occurred on June 30, 1925. Premature rupture of the membranes took place at the patient's home, but there had been no evidence of hydramnios. The placenta was expelled immediately after the fetus. The latter was badly macerated, weighed 1345 grams, and was 40 centimeters long. Two loops of umbilical cord tightly constricted the neck to the size of a man's thumb, the diameter over the cord about the neck being three centimeters. Evidently there had been considerable tension on the section of cord between the neck and umbilicus as the latter was pulled upward, and the cord near it was reduced in size as if stretched. The child was saved intact for the museum, but X-ray of the long bones showed no evidence of syphilis. The mother had an uneventful puerperium.

Probably death of the fetus was due to failure of the encircling loops of cord to expand in accord with growth of the fetal part<sup>3</sup>. Violent fetal activity, as was noted in this case, has been mentioned as usually preceding death by strangulation and has been considered an indication for rapid delivery, even Caesarean section.

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### HYPERTHYROIDISM MASKED BY THE DIABETIC SYNDROME

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There has come to my attention in the last few months two cases of hyperthyroidism associated with glycosuria. In fact, they showed such typical symptoms of diabetes mellitus that they were thus diagnosed at first. It is because of the infrequent emphasis upon this association of findings that I report my case and call attention to a similar case of my colleague, Dr. Walter den Bleyker.

Mr. K., age 40, Hungarian, married but no children. He had never been sick except that some cataracts appeared on both eyes 18 years ago. They apparently did not follow sickness nor injury, and one eye was operated upon without much improvement. Four weeks previous to my examination he had had pain in the upper abdomen with vomiting by spells which continued at irregular intervals. He had lost 30 pounds in three months and felt nervous and tired most of the time. He was unusually thirsty and complained of frequent urination. He had a fair ap-

petite, drank two glasses of wine daily, and smoked a pipe to excess.

Physical examination showed a lean, rather excitable man. Alopecia areata was present. Adherent cataracts were found in both eyes but more marked on the left. The teeth were very bad, tonsils negative. There was moderate symmetrical enlargement of the thyroid gland. The lungs were practically negative but the heart showed a marked irregularity resembling very much a fibrillation. The abdomen showed general tenderness which was more marked in the epigastrium; no tumor masses were palpable. Superficial and deep reflexes were exaggerated and the skin of the body was dry. The urine showed a specific gravity of 1.028, no albumen, no casts nor pus cells, but a considerable amount of sugar. The blood pressure at this time was 138/70.

Still not being impressed with the signs of hyperthyroidism I sent him to the hospital as a diabetic for further study. While there on a normal diet two 24 hr. specimens of urine were free of sugar; the fasting blood sugar was normal and the blood sugar curve following 100 gm. of glucose rose to 205 mmg. per 100 c.c. and returned to slightly below 110 in 2 hrs. Rest reduced only slightly the nervous manifestations and he performed many excessive movements in bed while talking. On further examination I found a small node in the right upper pole of the thyroid and a bruit over the gland on both sides. The blood Wassermann was reported negative; the basal metabolic rate was plus 65. A diagnosis of toxic goitre, probably exophthalmic, was made but the patient refused treatment and left the hospital of his own volition. The pulse at this time had become quite regular. Three days later at his home the heart was again irregular and the urine showed a trace of sugar.

Unfortunately my case would not submit to treatment of the goitre, but the case of Dr. den Bleyker underwent a thyroidec-tomy and is perfectly well today except for an occasional trace of sugar in the urine.

Falta mentions the fact that in some people hyperthyroidism determines a predisposition for glycosuria. "It appears that hyperthyroidism seems to signify a functional overloading of the pancreas; it is intelligible from this standpoint that glycosuria sets in only in individuals predisposed to it." He concludes by saying, "we are well justified in speaking of a thyrogenic glycosuria in such cases."

Chvostek concluded that a temporary glycosuria occurred in 69 per cent of exophthalmic goitres but this is much higher than any other writer records. Naunyn of Strassburg recorded only one case in a large series.

I had never had this association of findings particularly brought to my attention before, and so I merely wanted to reiterate the possibility of glycosuria associated with hyperthyroidism and illustrate how it may cloud the picture of the true condition of toxic goitre.



## MICHIGAN'S DEPARTMENT OF HEALTH

GUY L. KIEFER, M. D., *Commissioner* • Edited by MARJORIE DELAVAN

### SCARLET FEVER PREVENTION

Perhaps no disease has received as much public attention and interest during the past two or three years as has scarlet fever. Even today, however, there is a divided opinion as to just what policy to pursue in combating the disease. Some urge immunization of all susceptible children, others believe in providing temporary protection with antitoxin at the time of contact; and still others believe, even where there has been direct exposure, in waiting until initial symptoms have developed and then giving a therapeutic dose of antitoxin. Whichever of the three attitudes is adopted, there should first of all be a Dick Test, as a considerable number even in the generally susceptible age group (under 16 years of age) are not susceptible to scarlet fever. The Dick test is, of course, a method of determining whether or not a person is susceptible to the disease, and quite obviously if one is not apt to get the disease, we don't have to worry about either active immunization or antitoxin.

Without attempting to decide which of the policies should be adopted, because each one is useful, the facts as we know them seem to be:

1. Active immunization, as produced by injection or injections of scarlet fever toxin, is an established fact. It has the advantage over the antitoxin in producing immunity for a considerable period of time. We do not know accurately just how long after the injection or injections have been completed immunity will be produced. Immunity is apparently not produced rapidly enough to prevent the onset of scarlet fever after there has been a definite exposure. We do not as yet know how long the immunity once produced will last. It may last a year or two years, or it may last much longer. The reactions upon the persons to whom it is given are variable. In some there is little or no reaction, in others some reaction, and in a very few a rather severe reaction. On the whole, however, reactions are much less frequent and severe than they were when immunization was first practiced three years ago.

2. A prophylactic dose of scarlet fever antitoxin ( $\frac{1}{4}$  of a therapeutic dose) will

in the majority of instances prevent scarlet fever even after there has been a definite exposure, provided it is given shortly after such exposure. It gives, of course, only temporary immunity lasting for only a few weeks. Reactions vary considerably. Sometimes there is little or none; while in other instances the reaction is quite severe. It is efficient in producing temporary immunity.

3. Antitoxin, given in therapeutic doses at the time the patient develops first symptoms, almost always results in a lessening of the initial toxemia and frequently in shortening the duration of the disease, and in preventing complications. After recovery from the disease, the patient usually has immunity against a subsequent attack of scarlet fever.

Regardless of what procedure is adopted should the patient, or even an originally Dick negative person, be exposed to scarlet fever at some time in the future, such person should have another Dick test.

### RURAL PUBLIC HEALTH NURSING IN MICHIGAN

Rural public health nursing in Michigan had its beginning in 1915 when the Anti-Tuberculosis Association of Grand Rapids put on one nurse—Charlotte Van Duzor—whose activities were confined chiefly to school work and the home calls following these inspections.

In 1919 when the local Red Cross Chapters had sufficient funds in their treasuries many counties started nursing services with excellent programs. Later when these funds were nearly exhausted appropriations from the boards of supervisors were made to supplement the Red Cross expenditure or to assume the financial responsibility entirely.

The number of counties having a rural nursing service is not as great as in 1921-1923 but the greater stability of the work more than compensates for the loss in numbers.

At the present time there are sixty-seven nurses employed in thirty-one counties. In nineteen counties the nurses are paid wholly by public funds while in the other counties the Red Cross and tuberculosis funds are used for the nursing service. In four instances the share the Red

Cross takes in the program is merely in the purchase or upkeep of the car, the other expense being borne by public funds.

The following counties have established a nursing service: Alpena, Berrien, Bay, Cass, Calhoun, Clinton, Crawford, Emmet, Huron, Houghton, Ingham, Jackson, Kent, Livingston, Lapeer, Luce, Monroe, Montcalm, Montcalm, Marquette, Oakland, Ottawa, Oceana, Ontonagon, Saginaw, Wayne, Washtenaw, Wexford. Hillsdale has voted the appropriation but as yet the nurse has not been employed. Calhoun, Genesee, Ingham, Jackson, Kent, Muskegon, Saginaw and Washtenaw also have nurses employed by tuberculosis funds. In Alpena, Bay, Clinton, Crawford, Huron, Montcalm, Ottawa and Wexford the expense of the service is shared in part by the Red Cross.

The question most frequently asked is, "What are public health nurses doing?" Since the school seems the easiest entrance to the home, this is frequently the first type of work undertaken. After the children are weighed, measured, and inspected a health talk is usually given which touches on diet, proper amount of sleep, personal cleanliness, the need for fresh air, or any other points in hygiene which appear to be especially needed. Home calls are made where it is found corrections are needed, and in this way the nurse has an opportunity to meet the members of the family not of school age and frequently to advise on nursing matters for prenatal, infant, preschool and tuberculosis cases. This friendly contact paves the way for future work.

During this year emphasis has been placed on immunization against diphtheria. In practically every county where this work has been done it has been through an appropriation made by the supervisors. Local physicians assisted by the county nurses do the work. In Ottawa county the three treatments were given to 6,000 school children and to 1,097 preschool children. This represents an enormous amount of work since much preliminary educational effort is necessary before parents will consent to the administration. It is also necessary to set up a definite organization so that the time of the physicians will not be wasted.

Last year Alpena took up this work by townships and the entire county was covered. In Huron, Kent, Saginaw, Clinton, Crawford and Livingston counties immunization has had a prominent place in the program. In Livingston county the appro-

priation for this work was made by the supervisors at the suggestion of one of their own members, the supervisor of each township assuming a part of the responsibility for the advance publicity necessary and in some townships attending personally when the first treatment was given.

Harbor Springs was the first locality to apply to this Department for scarlet fever toxin following an outbreak of scarlet fever in the schools. A very large percentage of the school children were given treatment, the county nurse assisting the physician.

A quotation taken from one of the monthly reports made by the public health nurses throughout the state to the Michigan Department of Health shows another type of work in which all the nurses are engaged—that of bringing patients in actual need of medical attention to the physician.

"When I visited the school the teacher called my attention to a little brother and sister who were much underweight. I visited the parents and secured their permission to take the children to their physician.

Dr. \_\_\_\_\_ advised tonsillectomies in both cases as soon as possible. The little girl had endocarditis which he believed would clear up following the operation."

The school programs are each year becoming more educational as the nurses are gradually including more class work in their plans. It can readily be seen that when one nurse does all the public health nursing in a county it is not possible to teach many classes, but an effort is being made to introduce as much as possible.

#### IMPROVING SCHOOL DRINKING WATER SUPPLIES

School wells are the subject of an intensive study recently undertaken by the Bureau of Engineering, in an effort to improve the drinking water supplies of rural and semi-rural schools. The investigation will include only schools that have their own wells. It will not take in the village or city building that is supplied with water from a supervised source.

Work started in Monroe County, a representative of the Bureau of Engineering collecting water samples from 56 schools in that county and from 9 schools in Wayne county during the month of March. It is planned to continue the investigation as rapidly as time and personnel permit, working only during the school year. In some counties the public health nurses will



be asked to assist in collecting the water samples.

#### ANOTHER SIGN OF SPRING

Plans for continuation of the work begun in 1925 of safeguarding roadside water supplies for the benefit of the automobile traveler are already under way in the Bureau of Engineering, and it is hoped to get an earlier start than has been possible heretofore.

In the two summers that the work has been carried on practically all of the main trunk line highways in the state have been covered by representatives of the Bureau, and drinking water supplies that might tempt travelers have been inspected and samples tested. Of the 805 sources investigated in 1926, a total of 76.3 per cent were found to be safe and 23.7 per cent unsafe. Metal approval signs were posted at the safe sources. This year increased emphasis will be placed upon educating the public to drink only from certified sources.

#### HEALTH EDUCATION

Pamphlet distribution reached a record total in March, when 107,357 bulletins were sent out by the Mailing Division. An average of 50 requests a day were received for printed material, ranging from individual requests for single pamphlets to group requests for bulletins in quantity. By far the larger proportion of pamphlets went to teachers or public health nurses for use in schools or special classes.

Dental hygiene bulletins led the list, with a total of 53,650 distributed. This unusually high number is partly accounted for by the fact that printing was delayed and requests had piled up for more than a month. The department publishes three month hygiene pamphlets, "Dental Hints for the Prospective Mother," "Baby Teeth," and "The Child's Permanent Teeth." The latter is always the most popular one of the series.

Child hygiene bulletins, the series that usually tops the list, took second place in March, with a total of 32,264 sent out. These went largely to individuals, or to agencies interested in some phase of child welfare work. "Sunlight for Babies" led this list, with "Preventing Diseases of Childhood," "What Do Growing Children Need," "Why Drink Milk," "What Builds Babies," and "Care of the Baby" following in the order named. An increasing interest is being manifested in medical care during the prenatal period, and the leaflets

emphasizing this phase of child hygiene work are growing in popularity.

Communicable disease pamphlets are always in demand, and 6,404 were distributed during March. This series includes bulletins on diphtheria, measles, pneumonia, scarlet fever, poliomyelitis, smallpox, tuberculosis, typhoid fever, and whooping cough. Requests for the leaflet, "Make Diphtheria Ancient History in Michigan," led the list, with whooping cough, measles, scarlet fever, smallpox, pneumonia, tuberculosis, typhoid fever and poliomyelitis following. These pamphlets are popularly written, intended for the average layman, and with their main emphasis upon prevention.

Engineering bulletin requests are equally standard, the number sent out remaining nearly constant each month. A good many people are interested in "Sewage Disposal for Single Houses and Small Institutions," "The Chemical Closet," "Well Water Supplies for Homes," "The House Fly," and "Mosquito Control." These are written largely from the standpoint of the individual, while "Garbage Collection and Disposal," "Water Filtration," "Water Chlorination," "Sewerage and Sewage Disposal," and "Municipal Water Softening" are intended especially for the community officials concerned with such problems.

Of the 13 bulletins coming under the heading "Miscellaneous," "Meals for School Children" and "Food for Growth and Health" are the most in demand, with "Preventing Simple Goitre" third.

All bulletins are sent free of charge within the state.

Requests to be put on the mailing list for the department's monthly bulletin, "Public Health," average 100 a month, and these, with the names that are constantly being taken off, keep the mailing list at about 17,000.

Every effort is made to safeguard the distribution of printed material so as to waste as little as possible. Only those who ask for pamphlets get them.

#### LABORATORY VISITORS DURING THE MONTH OF MARCH

Miss Helen Cook, serologist at the Mayo Clinic in Rochester, Minnesota, spent a day in the serology room, observing the Kahn precipitation test.

Herbert E. McDaniels, senior bacteriologist of the Chicago Department of Health, spent a week here learning the Kahn test.

Miss Effie M. Cook, technician from

Blodgett Memorial Hospital at Grand Rapids, remained a week in the laboratory studying the methods used in routine bacteriologic examinations and the Kahn test.

Miss Ruby Streman, technician from Sparrow Hospital, Lansing, spends a few hours daily in the laboratory to obtain instruction in blood chemistry work.

F. T. Zieske, M. D., health officer of Roseville and F. A. Sturm, M. D., health officer of St. Clair Shores, were in the laboratory one morning discussing and observing methods used in diphtheria and typhoid work.

W. A. Harrison of the U. S. Public Health Service, Washington, D. C., inspected the biologic plant and laboratory.

F. M. Childs of the Detroit Department of Health observed the Kahn Test for one day.

C. A. Cummings, M. D., Director of Laboratories, and Miss M. Shepherd, both of the Public Health Institute of Chicago, spent two days in study of the Kahn test.

Miss Josephine Rulison is spending the time between graduation from high school in January and the time she enters college in September as an apprentice in laboratory technic.

#### VISITS OF ENGINEERS DURING THE MONTH OF MARCH

#### Inspections of Railroad Water Supplies, 14 cities:

|              |             |
|--------------|-------------|
| Alpena       | Hillsdale   |
| Ann Arbor    | Mt. Clemens |
| Bay City (2) | New Buffalo |
| Cheboygan    | Niles (2)   |
| Detroit      | Plymouth    |
| East Tawas   | Richmond    |
| Hartford     | Ypsilanti   |

#### Inspections and Conferences, Sewerage and Sewage Disposal, 8 cities:

|              |              |
|--------------|--------------|
| Adrian (2)   | Hillsdale    |
| Detroit (2)  | Holland (2)  |
| Ferndale     | Muskegon (3) |
| Grand Rapids | Stanton (3)  |

#### Inspections and Conferences, Water Supplies, 9 cities:

|                |                   |
|----------------|-------------------|
| Adrian         | Highland Park (2) |
| Alpena (8)     | Midland (5)       |
| Comstock Park  | Muskegon (2)      |
| East Tawas (6) | Utica (3)         |
| Grand Haven    |                   |

#### Inspection of Swimming Pool:

Owosso

#### Inspections, Garbage Disposal:

Royal Oak (3)

#### Inspection Tuberculosis Sanatorium:

Adrian

#### Inspection of Drainage:

Reading (3)

#### Inspections, Stream Pollution, 4 cities:

Bay City (2) Holland (2)  
Grand Rapids North Shores (2)

#### Inspection of School Wells and Collecting Samples:

56 Schools in Monroe County.

9 Schools in Wayne County.

#### PREVALENCE OF DISEASE

|                | March Report<br>Cases Reported |               |               | Av. 5<br>Years |
|----------------|--------------------------------|---------------|---------------|----------------|
|                | February<br>1927               | March<br>1927 | March<br>1926 |                |
| Pneumonia      | 679                            | 662           | 1,595         | 1,109          |
| Tuberculosis   | 342                            | 419           | 475           | 437            |
| Typhoid Fever  | 33                             | 39            | 35            | 50             |
| Diphtheria     | 485                            | 439           | 398           | 518            |
| Whooping Cough | 534                            | 609           | 1,176         | 625            |
| Scarlet Fever  | 1,423                          | 1,636         | 1,779         | 1,579          |
| Measles        | 902                            | 1,302         | 8,269         | 3,051          |
| Smallpox       | 186                            | 191           | 30            | 229            |
| Meningitis     | 13                             | 16            | 11            | 16             |
| Poliomyelitis  | 2                              | 4             | 3             | 4              |
| Syphilis       | 1,148                          | 1,620         | 1,214         | 985            |
| Gonorrhea      | 717                            | 879           | 711           | 704            |
| Chancroid      | 12                             | 9             | 15            | 15             |

#### CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health  
March, 1927

|  | +    | -    | + - | Total    |
|--|------|------|-----|----------|
| Throat Swabs for Diphtheria                      |      |      |     | 1286     |
| Diagnosis  | 45   | 391  |     |          |
| Release  | 169  | 213  |     |          |
| Carrier  | 14   | 419  |     |          |
| Virulence Tests                                  | 26   | 9    |     |          |
| Throat Swabs for Hemolytic Streptococci          |      |      |     | 801      |
| Diagnosis  | 150  | 219  |     |          |
| Carrier  | 60   | 372  |     |          |
| Throat Swabs for Vincent's                       | 24   | 411  |     | 435      |
| Syphilis   |      |      |     | 6776     |
| Wassermann                                       |      | 2    |     |          |
| Kahn   | 1274 | 5413 | 83  |          |
| Darkfield  | 2    | 2    |     |          |
| Examination for Gonococci                        | 173  | 1181 |     | 1351     |
| B. Tuberculosis                                  |      |      |     | 547      |
| Sputum   | 73   | 431  |     |          |
| Animal Inoculations                              | 3    | 40   |     |          |
| Typhoid  |      |      |     | 147      |
| Widal  | 5    | 42   |     |          |
| Blood Culture                                    | 1    | 26   |     |          |
| Feces  | 19   | 44   |     |          |
| Urine  | 1    | 9    |     |          |
| Dysentery  |      |      |     | 46       |
| Intestinal Parasites                             |      |      |     | 24       |
| Transudates and Exudates                         |      |      |     | 233      |
| Blood Examinations (not classified)              |      |      |     | 970      |
| Urine Examinations (not classified)              |      |      |     | 496      |
| Water and Sewage Examinations                    |      |      |     | 860      |
| Milk Examinations                                |      |      |     | 132      |
| Toxicological Examinations                       |      |      |     | 17       |
| Autogenous Vaccines                              |      |      |     | 7        |
| Supplementary Examinations                       |      |      |     | 209      |
| Unclassified Examinations                        |      |      |     | 546      |
| Total for the Month                              |      |      |     | 14883    |
| Cumulative Total (fiscal year)                   |      |      |     | 118254   |
| Decrease over this month last year               |      |      |     | 1928     |
| Outfits Mailed Out                               |      |      |     | 16347    |
| Media Manufactured, c.c.                         |      |      |     | 365515   |
| Typhoid Vaccine Distributed, c.c.                |      |      |     | 1584     |
| Toxin Antitoxin Distributed, c.c.                |      |      |     | 29040    |
| Toxin Antitoxin Distributed, units               |      |      |     | 37660000 |
| Silver Nitrate Ampules Distributed               |      |      |     | 5592     |
| Examinations Made by the Houghton Laboratory     |      |      |     | 2547     |
| Examinations Made by the Grand Rapids Laboratory |      |      |     | 6720     |

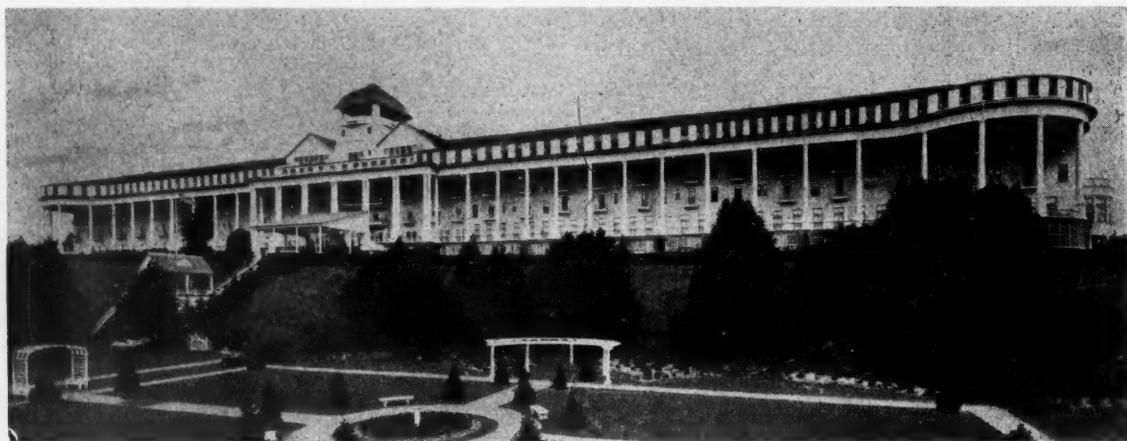


## Mackinac Island

107th Annual Meeting Place—June 16-17-18, 1927

Mackinac Island stands high and proud in the Straits of Mackinac, between Lake Michigan and Lake Huron and within reach of the crisp, cool breezes that blow south from Lake Superior. Its altitude ranges from 150 to 339 feet above the level of the lake. The great natural beauty of Mackinac in its setting of three great lakes, and the invigorating quality of the

air, have made it a favored summer resort. Interest is added by its storied past visualized in the block houses and white-walled old Fort Mackinac that looks down from the heights on the town and the harbor. The mind pictures easily the colorful procession of Indians, trappers, voyageurs, missionaries, fur traders and soldiers that crossed the island in the days when the



THE GRAND, MACKINAC ISLAND, MICHIGAN—AMERICA'S SMARTEST RESORT

*As viewed from the Italian Gardens the Grand may be recognized as the largest and finest summer resort in the world. The luxurious appointments of the hotel include two ball rooms, a grill room, hotel theatre, and spacious parlors and foyers*

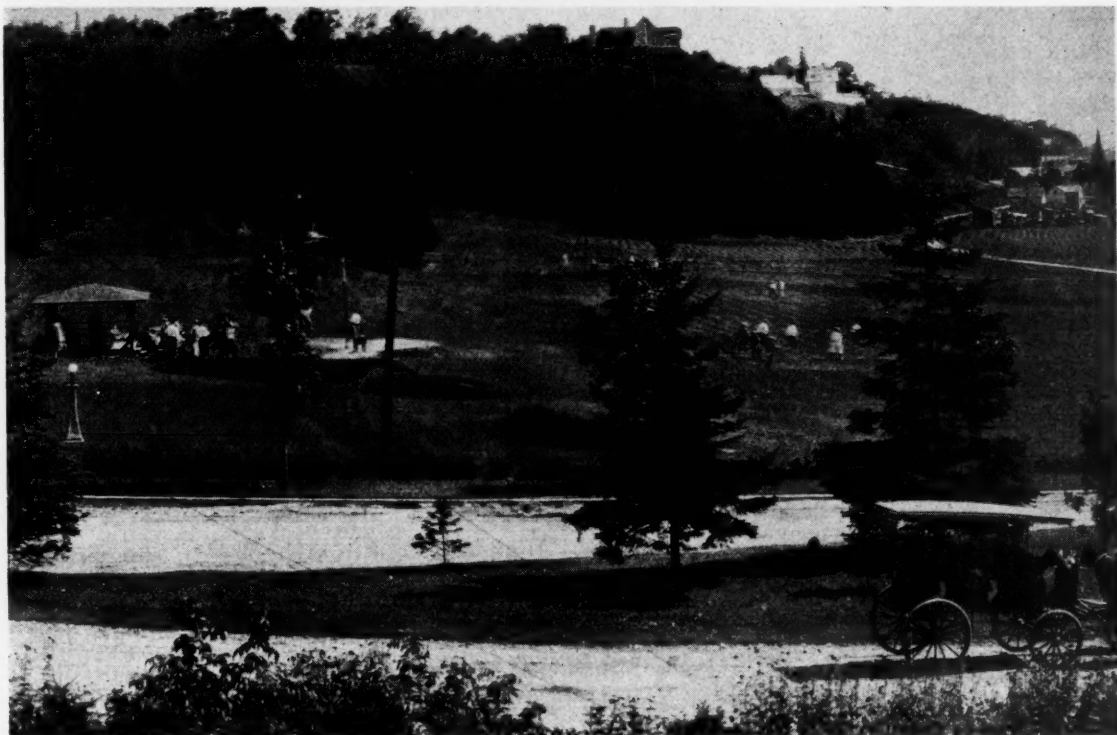


*The tea garden as viewed from the hotel veranda*

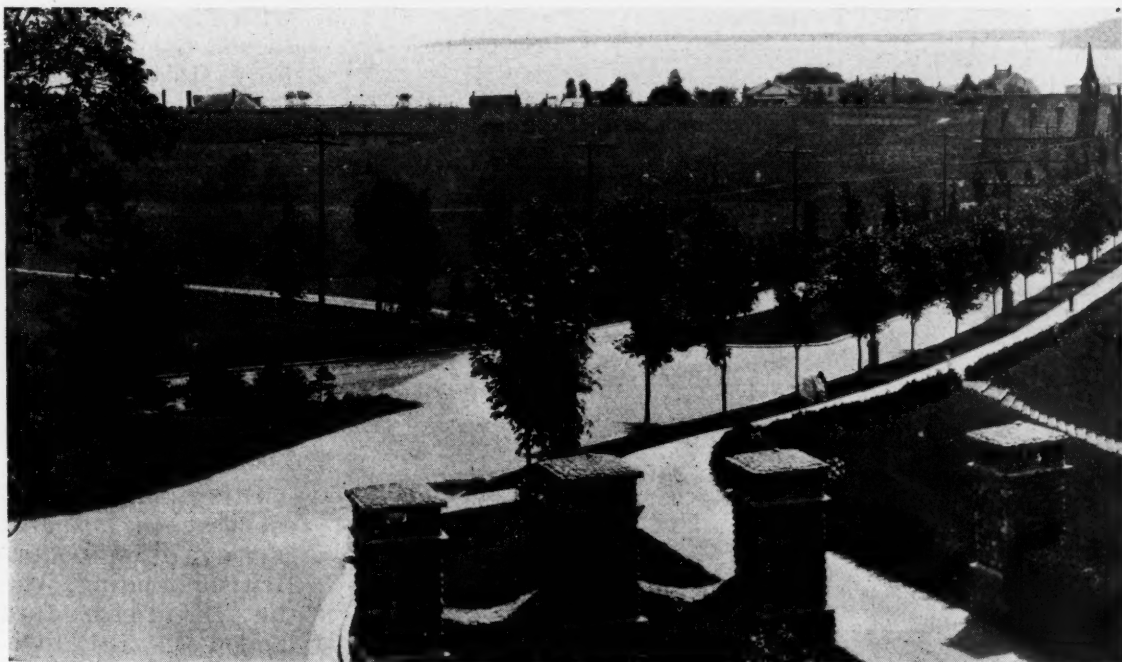
early history of the great Northwest was in the making and three nations, French, American and English, were fighting for possession of the new world.

Delightful drives through Michigan's 2,000-acre State Park, on the Island, are taken in comfortable carriages drawn by horses. The drivers are all local men, well

informed on the history and Indian legends of the Island. One of the most interesting of the drives covers a distance of nine miles through deep forests of maple, beech, birch, pine, cedar, and balsam, and along an occasional precipitous cliff that gives an extensive view of the Great Lakes. Among the points of interest along this

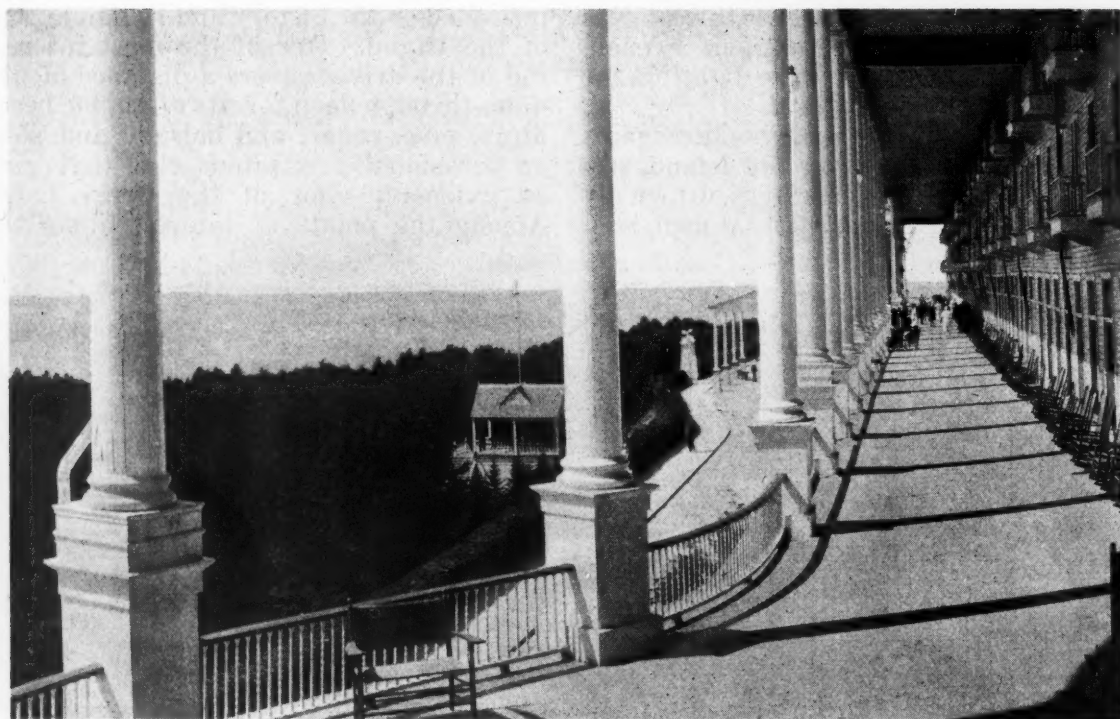


*The Grand golf links as viewed from the east veranda*



*A view of part of the hotel grounds*





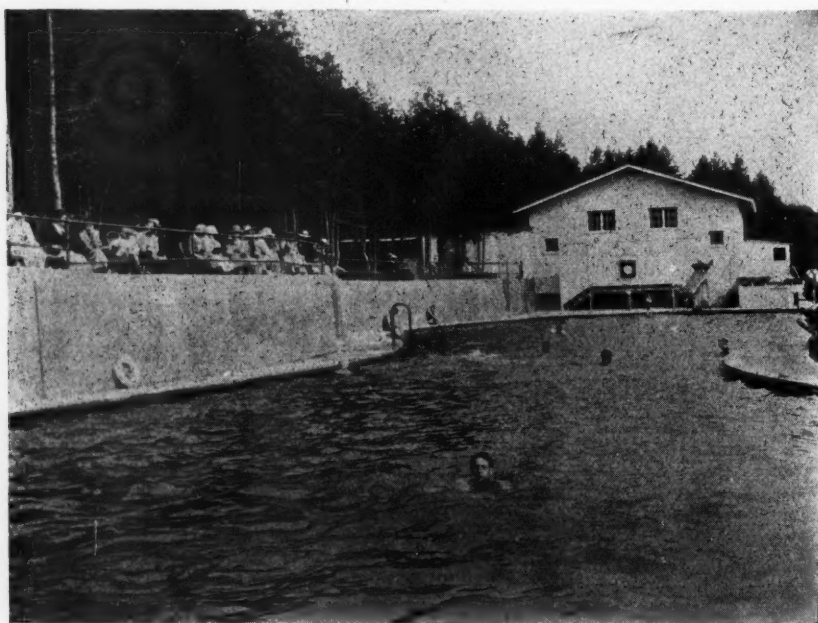
*A partial view of the immense veranda, the largest in the world—over two city blocks in length*

drive are Robinson's Folly, a steep bluff rising 127 feet above Lake Huron; Arch Rock, a natural limestone arch rising sheer from the water's edge to a summit 149 feet high; Sugar Loaf, a rock cone rising 90 feet from the wild forest growth in the center of the Island; the 1,000-yard Rifle Range where United States soldiers, during their occupancy of Fort Mackinac, practiced marksmanship; old Fort Mack-

inac overlooking the town and commanding the harbor and the straits from its height of 133 feet, the point to which it was removed from Mackinaw City in 1780, after the close of Pontiac's conspiracy; the stone blockhouses erected at that time and still in their original state; Skull Cave, where the fur trader, Alexander Henry, was hidden away by friendly Indians during the massacre of 1763; Point Lookout

with its sweeping view to the north and east; Fort Holmes, built by the British on the highest point of the Island, in the rear of Fort Mackinac, during the War of 1812; Lover's Leap, from which an Indian maiden leaped to her death when she learned that her lover had been killed in battle with one of the hostile tribes; and Pontiac's Lookout.

Other points of interest reached, either by carriage or on foot, are: British Landing, where the British forces landed in 1812 when they captured Fort Mackinac from a small



*Swimming Pool*

force of United States soldiers; Scott's Cave, a large rock cavern on the west end of the Island; Chimney Rock, Devil's Kitchen and the Wishing Spring.

The John Jacob Astor House, cradle of the Astor fortune, was erected by the American Fur company in 1809, when Mackinac Island was the seat of government for the Northwest Territory. It has low ceilings, heavy timber braces, ancient fireplaces and cumbersome iron door locks, and its old storage vaults still hold the early accounts and record books of the fur company.

Recreation is not limited to driving, walking and sight-seeing. Two of the sportiest, best-kept and most beautiful golf courses in northern Michigan invite the golf enthusiast. Good saddle horses are available and the enticing bridle trails through the woods are numerous. There are tennis courts, baseball grounds, good bathing beaches, large swimming pools, canoes in the quiet bays of the great lakes,

motor boats and sailboats. Moonlight cruises around the Island are arranged at frequent intervals.

The foregoing, abbreviated description imparts but meager details of the Island's beauty, history and attraction. It is a most fascinating environment that provides an ideal surrounding and setting for our Annual meeting. For that reason it was designated.

The Grand hotel will be our headquarters and the place where all meetings will be held. See their advertisement in this issue and send in your reservations.

Special train service is being arranged and will be announced in the June issue.

A committee in charge of all sport events is engaged in preparing a program. This too will appear in the June issue.

The important detail is to note the dates, obtain your reservations and determine not to forego this exceptional Annual meeting.

## Official Program, 107th Annual Meeting, Michigan State Medical Society, Mackinac Island, June 16-17-18th, 1927

### CALL

The Michigan State Medical Society will convene in Annual Session, on Mackinac Island on June 16, 17, 18, 1927. The order of business as provided by our Constitution and By-laws and official program will be observed.

J. B. Jackson, President.  
R. C. Stone, Council Chairman.  
W. K. West, Speaker.

Attest: F. C. Warnshuis, Secretary.

### CONDENSED SCHEDULE

#### June 15th.

7:00 p. m.—Council Meeting.

#### June 16th.

10:30 a. m.—House of Delegates.

1:00 p. m.—House of Delegates.

7:30 p. m.—House of Delegates.

#### June 17th.

8:45 a. m.—Section Meetings.

1:30 to 6:00 p. m.—Golf and Sports.

6:30 p. m.—Banquet.

8:00 p. m.—General Session.

#### June 18th.

8:45 a. m.—Section Meetings.

1:30 to 6:00 p. m.—Golf and Sports.

6:30 p. m.—Dinner.

8:00 p. m.—General Session.

All meetings will be held in the Grand Hotel.

### HOUSE OF DELEGATES

Theater of Grand Hotel

Thursday, June 16, 1927

### FIRST SESSION

10:30 a. m.

Speaker, W. K. West, Painesdale.  
Vice-Speaker, Henry R. Carstens, Detroit.  
Secretary, F. C. Warnshuis, Grand Rapids.

### ORDER OF BUSINESS

1. Call to Order.
2. Report of Credential Committee.
3. Speaker's Address—W. K. West.
4. President's Address—J. B. Jackson.
5. Report of the Council—R. C. Stone, Chairman.
6. Appointment of Reference Committees.
7. Election of Nominating Committee of five.  
No two members shall be from the same Councilor District. The duties of the Nominating Committee are:
  - (a) Supervise Ballot for President.
  - (b) Nominate.
    1. Four Vice-Presidents.
    2. Delegate to A. M. A. and Alternate to succeed Carl F. Mol and W. E. Chapman terms expiring.



3. Delegates from 7th, 8th and 9th Councilor Districts will meet the State Secretary in Caucus to nominate Councilors for these districts whose terms expire.
8. Reports of Committees.
  - (a) Medical Education  
—A. P. Biddle.
  - (b) Hospital Survey  
—R. R. Smith.
  - (c) Public Health  
—R. C. Mahoney.
  - (d) Legislation  
—H. A. Haze.
  - (e) Tuberculosis  
—B. A. Shepard.
  - (f) Venereal Prophylaxis  
—W. F. Martin.
  - (g) Civic and Industrial Relations  
—L. S. Farnham.
  - (h) Nursing Education  
—C. E. Boys.
  - (i) Medical History  
—C. B. Burr.
  - (j) Delegates to the A. M. A.
9. Unfinished Business. Amendments to Constitution.
10. New Business and Resolutions.
11. Recess.

## SECOND SESSION

1:00 p. m.

1. Roll Call.
2. Reports to Reference Committees.
3. Unfinished Business.
4. New Business.
5. Recess.

## THIRD SESSION

7:30 p. m.

1. Roll Call.
2. Reports of Reference Committees.
3. Report of Nominating Committee.  
Report of Secretary.
4. Election.
  - (a) Four Vice-Presidents.
  - (b) Councilors for 7th, 8th and 9th Districts.
5. Unfinished Business.
6. Adjournment.

## DELEGATES TO ANNUAL MEETING

NOTE:—Delegates in Capitals.  
Alternates in Regular.

### ALPENA COUNTY

C. M. WILLIAMS, ALPENA  
W. B. Newton, Alpena

### NORTHERN MICHIGAN MEDICAL SOCIETY ANTRIM, CHARLEVOIX, EMMETT, CHEBOYGAN COUNTY

HARRY SHAVER, BOYNE CITY  
FREDERICK MAYNE, CHEBOYGAN

### BARRY COUNTY

B. C. SWIFT, MIDDLEVILLE  
R. W. Gridwold, Freeport

### BAY, ARENAC, IOSCO COUNTY

V. H. DUMOND, BAY CITY  
J. W. Hauzhurst, Bay City

### BENZIE COUNTY

### BERRIEN COUNTY

### BRANCH COUNTY

W. A. GRIFFITH, COLDWATER  
W. W. Williams, Coldwater

### CALHOUN COUNTY

C. S. GORSLINE, BATTLE CREEK  
GEO. C. HAFFORD, ALBION  
A. F. Kingsley, Battle Creek  
W. L. Godfrey, Battle Creek

### CASS COUNTY

### CHIPPEWA, LUCE, MACKINAC COUNTY

C. J. ENNIS, SAULT STE MARIE  
G. A. Conrad, Sault Ste Marie

### CLINTON COUNTY

### DELTA COUNTY

### DICKINSON-IRON COUNTY

### EATON COUNTY

P. H. QUICK, OLIVET  
Stanley Stealey, Charlotte

### GENESEE COUNTY

### GOGEBIC COUNTY

### GRAND TRAVERSE-LEELANAU COUNTY

### HILLSDALE COUNTY

W. H. SAWYER, HILLSDALE  
G. R. Hanke, Ransom

### HOUGHTON-BARAGA-KEWEENAW COUNTY

A. C. ROCHE, CALUMET  
M. D. Roberts, Hancock

### HURON COUNTY

### INGHAM COUNTY

EARL McINTYRE, LANSING  
HARRY B. WEINBURGH, LANSING  
Fred J. Drolette, Lansing  
O. Bruegel, East Lansing

### IONIA-MONTCALM COUNTY

R. R. WHITTEN, IONIA  
George E. Horne, Entrican

### GRATIOT-ISABELLA-CLARE COUNTY

C. F. DU BOIS, ALMA  
M. J. Budge, Ithaca

### JACKSON COUNTY

HAROLD L. HURLEY, JACKSON  
Corwin S. Clark, Jackson

### KALAMAZOO-VAN BUREN-ALLEGAN COUNTY

WALTER den BLEYKER, KALAMAZOO  
W. E. SHACKELTON, KALAMAZOO  
Sherman Gregg, Kalamazoo  
O. D. Hudnutt, Otsego

### KENT COUNTY

A. V. WENGER, GRAND RAPIDS  
G. H. SOUTHWICK, GRAND RAPIDS  
J. D. BROOK, GRANDVILLE  
H. J. PYLE, GRAND RAPIDS

E. W. Schnoor, Grand Rapids  
W. E. Wilson, Grand Rapids  
J. S. Brotherhood, Grand Rapids  
R. H. Spencer, Grand Rapids

**LAPEER COUNTY**

C. D. CHAPIN, COLUMBIAVILLE  
F. E. Dodds, Silverwood

**LENAAWEE COUNTY**

H. H. HAMMELL, TECUMSEH  
R. G. B. Marsh, Tecumseh

**MACOMB COUNTY****MANISTEE COUNTY**

HARLAN MAC MULLEN, MANISTEE  
C. L. Grant, Manistee

**MARQUETTE-ALGER COUNTY****MASON COUNTY****MECOSTA COUNTY**

B. L. FRANKLIN, REMUS  
Donald MacIntyre, Big Rapids

**MENOMINEE COUNTY****MIDLAND COUNTY****MONROE COUNTY**

D. C. DENMAN, MONROE  
James Humphrey, Monroe

**MUSKEGON COUNTY**

W. F. GARBER, SR., MUSKEGON  
A. F. Harrington, Muskegon

**NEWAYGO COUNTY**

WILLYS GEERLING, FREMONT  
Dr. Moore, Newaygo

**OAKLAND COUNTY****OCEANA COUNTY**

OTSEGO-MONTMORENCY-CRAWFORD,  
OSCODA, ROSCOMMON-OGEMAW COUNTY

**ONTONAGON COUNTY**

E. J. EVANS, ONTONAGON  
F. W. McHugh, Ontonagon

**OSCEOLA-LAKE COUNTY****OTTAWA COUNTY****PRESQUE ISLE COUNTY****SAGINAW COUNTY**

A. R. McKINNEY, SAGINAW  
J. T. Sample, Saginaw

**SANILAC COUNTY****SCHOOLCRAFT COUNTY****SHIAWASEE COUNTY**

COLIN McCORMICK, OWOSSO  
W. E. Ward, Owosso

**ST. CLAIR COUNTY**

A. L. CALLERY, PORT HURON  
D. W. Patterson, Port Huron

**ST. JOSEPH COUNTY****TRI-COUNTY**

WEXFORD, KALKASKA-MISSAUKEE

**TUSCOLA COUNTY**

JOHN G. MAURER, REECE  
R. A. Townsend, Fairgrove

**WASHTENAW COUNTY**

THERON S. LANDFORD, ANN ARBOR  
JAMES D. BRUCE, ANN ARBOR

**WAYNE COUNTY**

GEORGE J. BAKER  
A. P. BIDDLE  
G. V. BROWN  
A. E. CATHERWOOD  
JOHN L. CHESTER  
H. F. DIBBLE  
G. B. GARBER  
L. T. HENDERSON  
L. J. HIRSCHMAN  
FRANK A. KELLY  
CHAS. B. KENNEDY  
J. C. KENNING  
J. A. KIMZEY  
C. L. McCLINTIC  
W. W. MAC GREGOR  
R. M. McKEAN  
F. M. MEADER  
E. B. RICHEY  
HOWARD W. PIERCE  
F. D. ROYCE  
S. E. SANDERSON  
CLARE L. STRAITH  
R. V. WALKER  
L. F. C. WENDT  
WALTER J. WILSON  
A. Amberg  
L. P. Breitenbach  
C. D. Brooks  
F. G. Buesser  
H. R. Carstens  
W. J. Cassidy  
H. L. Clark  
F. H. Cole  
M. A. Darling  
J. E. Davis  
J. H. Dempster  
D. Donald  
W. A. Evans  
G. E. Frothingham  
Hugh Harrison  
A. F. Jennings  
N. O. La Marche  
B. H. Larsson  
B. C. Lockwood  
L. Reynolds  
G. C. Penberthy  
E. D. Spaulding  
W. J. Stapleton, Jr.  
C. K. Valade  
H. W. Yates

**GENERAL SESSIONS**

Theater of Hotel

September 17th, 8:00 p. m.

1. Call to Order—President Jackson.
2. Invocation.
3. Announcements—Secretary.
4. Nominations for President.
5. President's Annual Address—J. B. Jackson.
6. Arthritis: Ralph Pemberton, M. D., Philadelphia, Pa. (By invitation).
7. Entertainment—Ball Room and Grill.

**SECOND GENERAL SESSION**

September 18th, 8:00 p. m.

1. Call to Order—President Jackson.
2. The History of Goitre Pathology — Dean Lewis, M. D., Baltimore, Md., (By Invitation).
3. Professional Vagaries.  
Morris Fishbein, M. D., Chicago; Editor Journal of the A. M. A. (By invitation).

NOTE—The Evening Dinners at 6:30 p. m. in the Main Dining Room will be a fellowship function, followed immediately by the General Sessions.

**SECTION MEETINGS**

The five Scientific Sections will meet on Friday and Saturday mornings from 8:45 a. m. to 12:30. Section programs of splendid papers have been prepared by Section Officers as follows:

**MEDICAL SECTION**

Chairman, C. F. Karshner, Grand Rapids.  
Secretary, W. R. Vis, Grand Rapids.

Chairman's Address—C. F. Karshner.

"The Field of Usefulness of Iodine in Goiter"—A. F. Jennings, Detroit, Mich.

"Pertinent Facts Concerning Hemoglobin"—C. E. Roderick, Pathologist Battle Creek Sanitarium.

"The Value of Gain in Weight as an Indication of the Healing of Pulmonary Tuberculosis"—J. Burns Amberson, Jr., William H. Maybury Sanatorium, Northville, Mich.

"Malta Fever"—I. F. Huddleson, Department of Animal Husbandry, Michigan State College.

Saturday morning, June 18.

"O-Iodoxybenzoic Acid in the Treatment of Arthritis"—J. B. Youmans, Department of Internal Medicine, University of Michigan.

"The Power of Sunlight to Destroy Bacteria"—F. M. Meader, Department of Health, Detroit, Mich.

"The Pathology of Pulmonary Radiographic Opacities"—P. M. Andrus, Pathologist Queen Alexandra Sanatorium, London, Ontario.

"Arthritis"—Ralph Pemberton, Philadelphia, Pa.

"A Study of the Dietary Treatment of Pernicious Anaemia"—John Huston, Department of Internal Medicine, University of Michigan.

William R. Vis,  
Secretary Medical Section.

**PEDIATRICS**

Chairman,

Secretary, D. J. Levy, Detroit, Mich.

Friday Morning June 17th.

"Tuberculosis in Childhood"—Bruce H. Douglas, Northville.

By means of Ranke's classification of tuberculosis and Krause's explanation of the altering of the defensive mechanisms in the child and the adult many of the differences between the manifestations of the disease during childhood and adult life are explainable. The diagnosis and treatment of tuberculosis in childhood can be soundly based on these principles.

"Diagnosis and Treatment of Acute Osteomyelitis in Children"—Grover D. Penberthy, Detroit.

"Postural Defects in Children"—Carl E. Badgley, University Hospital.

"Biophysical Principles of Light Therapy"—Ernest A. Pohle, University Hospital.

Light therapy has been in use for centuries, but only recently the entire physical therapy, of which light therapy is a part, received official recognition as a branch of medicine by the American Medical Association. Little is known, however, regarding the effect of light on cells, tissue, organs and organisms; no standard method of dosage has so far been adopted. It seems desirable, therefore, to present a brief selected compilation of the facts scattered throughout the literature, which form the beginning of a foundation for scientifically conducted light therapy.

"The Choreas, with Special Reference to Their Etiology and Treatment"—Carl D. Camp, University Hospital.

Choreas in children differ in etiology, prognosis and treatment. Infectious type, type due to hereditary syphilis, type due to encephalitis and hereditary defect. Conditions simulating chorea such as multiple tic or habit spasm, also hysteria.

Saturday Morning, June 18th.

"Comparative Vitamin Content of Human and Cow's Milk with Pathological Demonstration"—Miss Icie Macy.

"The Behavior of Children in Relation to Medical Treatment"—Homer T. Clay, Grand Rapids.

"The Relative Importance of Certain Qualitative Variations in the Composition of Infant Foods"—Grover F. Powers, Henry Ford Hospital, Detroit, Mich.

"The Relative Importance of Certain Qualitative Variations in the Composition of Infant Foods." (Lantern slides).

(A discussion of the known factors of importance in the artificial feeding of infants with the intent of stimulating interest in a direct and simple approach to the problem involved.)

"Urology in Children"—Walton K. Rexford, Detroit, Mich.

NOTE:—The Programs for Surgery, Gynecology and Obstetrics and Eye, Ear, Nose and Throat will appear in the June issue.

**ENTERTAINMENT**

Mackinac Island and the Grand Hotel furnish a unique environment for our Annual meeting. This year's session will enable us to combine pleasure with our work. The program has been so arranged that Friday and Saturday afternoons from 1 to 6 o'clock opportunity is afforded for golf, tennis, archery, quoits, boating and scenic rides about the island. At 6:30 p. m. each evening we will all meet in the main dining room for dinner.

Train and boat service will be announced in the June issue.

Make your hotel reservations *now!*



# EDITORIAL DEPARTMENT

EDITOR: Frederick C. Warnshuis, M. D., F. A. C. S.

ADDRESS ALL COMMUNICATIONS TO THE EDITOR—1508 G. R. NAT'L BANK BLDG., GRAND RAPIDS, MICH.

## MICHIGAN STATE MEDICAL SOCIETY CONVENTION, MACKINAC ISLAND, JUNE 16-18, 1927

To accommodate members of the Michigan State Medical Society, their families and friends who will attend the state meeting at Grand Hotel, Mackinac Island, June 16th, 17th and 18th, the Pennsylvania railroad will arrange to provide special sleeping cars for exclusive use of members from Grand Rapids to Mackinaw City in their train leaving Grand Rapids at 10:30 p. m., Wednesday, June 15th and Thursday, June 16th, arriving Mackinaw City 7:05 a. m., at which point connection is made with Island Transportation company boat arriving Mackinac Island approximately 8 a. m.

It is quite probable a majority of members will wish to remain over at Mackinac Island until Sunday, June 19th, and, in view of the fact that summer schedule of the Pennsylvania railroad will not be effective until last week in June, the railroad people will, providing approximately 125 persons signify their intention of returning together, operate special train leaving Mackinaw City Sunday afternoon, June 19th, arriving Grand Rapids in time for connection with late night trains for southeastern Michigan points including Detroit.

The short limit excursion fare from Grand Rapids to Mackinac Island and return is \$12.10.

The cost for lower berth, Grand Rapids to Mackinaw City, is \$3, upper \$2.40, drawing-room \$10.50; seat fare, Mackinaw City to Grand Rapids, \$1.50.

For reservations or further information, kindly communicate with Mr. A. E. Butin, Division Passenger Agent, Pennsylvania railroad, Grand Rapids, Mich., or request your local agent to secure train reservations.

### R. R. RATES MACKINAC ISLAND

The appended rates will prevail for our State Meeting. They are for the round trip

*exclusive* of Pullman fares. Members can leave Detroit and intermediate points via the Pere Marquette or Michigan Central at 5:30 p. m., arriving at Grand Rapids at 9:30 p. m. Leave Grand Rapids at 10:30 p. m., arriving at Mackinaw City at 7. a. m., where a ferry will be waiting and to reach the Island by 8 a. m. Through Pullmans will run from Detroit.

|                     |         |
|---------------------|---------|
| Detroit .....       | \$16.50 |
| Ann Arbor .....     | 16.50   |
| Jackson .....       | 15.50   |
| Kalamazoo .....     | 14.40   |
| Grand Rapids .....  | 12.10   |
| Benton Harbor ..... | 16.20   |
| Flint .....         | 13.00   |
| Saginaw .....       | 11.40   |
| Muskegon .....      | 13.25   |

Members on the east side of the state can go up on the regular trains at these summer round trip rates.

### ARCHERY AT THE ANNUAL MEETING

It seems quite fitting and proper that the ancient sport of archery is to be included in the outdoor events of the Annual meeting at Mackinac Island. What wonderful tales of feats with the bow and arrow could be told by this historic old Indian home and battle ground, lying like an emerald gem in the Straits of Mackinaw.

It is quite easy to imagine that perhaps some long departed Indian spirits will return next June to watch with critical eye some of the feats of skill which will be attempted by the archers of today with their tackle patterned after the old English longbow which have come down to us from the days of Sherwood Forrest.

All archers who are members of the society are urged to be present at the Annual meeting and to bring their archery tackle. There will be various events in which all may feel free to enter. The afternoons of Friday and Saturday, the 17th and 18th have been given for outdoor events and archery will have its place on the program.

The following contests will be carried out subject to whatever changes may be deemed necessary later.

Games of Rovers by groups of four to be played on one of the golf courses.

Trials for longest arrow flight.

Three arrows to be shot; longest flight to count.

Clout shooting contest.

Archery-golf contest to be played by archers against golfers over nine holes, two against two.

Archery-golf contest special.

A special challenge is issued by Dr. S. J. Rubley of Monroe and Dr. R. G. B. Marsh of Tecumseh, to play against any two golfers who are members of the Michigan State Medical Society, in a special contest of 18 holes. The archers to use a soft rubber ball four inches in diameter as a target to take the place of the regulation golf hole. Suitable conditions for the golfers in regard to ground rules will be made according to the condition of the grounds.

Any members wishing to take part in any of the above events are requested to communicate with Dr. R. G. B. Marsh of Tecumseh.

### WOMAN'S AUXILIARY

The House of Delegates directed the organization of a Woman's Auxiliary. President Jackson appointed an Organization Committee with Mrs. C. B. Crane of Kalamazoo as chairman. During the past month a communication was addressed to each County Society requesting the appointment of a local organizer or committee. Replies have thus far been received from the following:

#### NOMINEES:

##### *Barry County—*

President, Mrs. Guy C. Keller, Hastings.  
Secretary, Mrs. A. W. Woodburne, Hastings.  
Treasurer, Mrs. B. C. Swift, Middleville.

##### *Bay County—*

Mrs. Paul Urmston, McKinley Avenue, Bay City.  
Mrs. L. Fernald Foster, McKinley Avenue, Bay City.  
Mrs. C. L. Hess, Hill Street, Bay City.

##### *Calhoun County—*

Mrs. Theodore Kolvoord, 137 Freylinghusen Street, Battle Creek.

##### *Chippewa-Luce-Mackinac County—*

Mrs. G. A. Conrad, Sault Ste Marie.  
Mrs. F. C. Bandy, Sault Ste Marie.  
Mrs. E. A. Cornell, Sault Ste Marie.

##### *Gogebic County—*

Mrs. E. B. Stebbins, 653 McLeod Avenue, Ironwood.  
Mrs. A. J. O'Brien, 419 E. Vaughn Street, Ironwood.  
Mrs. D. C. Pierpont, St. James Hotel, Ironwood.

##### *Ingham County—*

Mrs. Fred Seger, 216 E. Hillsdale, Lansing.

##### *Jackson County—*

Mrs. C. S. Clark, 1046 Fourth Street, Jackson.  
Mrs. George A. Seybold, 1503 W. Washington Avenue, Jackson.  
Mrs. John C. Smith, 1114 W. Washington Avenue, Jackson.

##### *Mason County—*

Mrs. Barbara Switzer, 127 N. James Street, Ludington.

##### *Menominee County—*

Mrs. W. S. Jones, Menominee.  
Mrs. H. A. Vennema, Menominee.

##### *Wayne County—*

Mrs. Robert Beattie, 1455 W. Grand Blvd. Detroit.

County Societies are urged to send in their nominations.

### DR. FRANK B. WALKER

We record the death of a member, ex-Councilor and Past-President, Dr. Frank B. Walker of Detroit. In his passing there has ended an unusually full and well rounded life; a life devoted to mankind and to medical science. Exemplifying noble ideals, reflecting true traits of steadfast friendship and clinging to principles characteristic of all reputable doctors, Dr. Walker honored his profession and attained a leadership role that exercised wholesome influences.

We mourn his departure, record our sorrow and extend to his bereaved family our sincerest sympathy.

### FRANK B. WALKER AND BLOOD VESSEL SURGERY

The experimental work done in Blood Vessel Surgery by Dr. Frank B. Walker between 1894 to 1897 is not generally known because the work was never published and thereby hangs a story with a moral to it.

While a student in the office of Doctors H. O. Walker and Frank B. Walker I assisted Dr. Frank B. Walker in dog surgery. It is not generally known that Dr. H. O. Walker was the first to do intestinal anastomosis in the human being with the Murphy button, but Murphy gave him that credit at the Milwaukee meeting of A. M. A.

After Dr. Frank had tried various

methods of intestinal anastomosis he came to the conclusion that the best intestinal anastomosis could be done merely with a needle and thread, the method today.

After the experience in intestinal anastomosis he then took up arterial suturing end to end. The abdominal aorta in dogs was cut in two, then suturing through all coats of arteries with eversion of the lips which made an intima to intima contact. After several successful suturing of abdominal Aorta I then assisted him in suturing of the carotid of a horse, which was also successful.

When he had collected, as he thought, a sufficient number of specimen of union with microscopic slide he was about to publish it when Dr. J. B. Murphy published his article (1897) on Arterial Suturing which was done by an invagination method, both by continuous or interrupted sutures, one out of five being successful. Immediately Dr. F. B. Walker gave up the idea of publishing his work because of the well known reputation of Murphy in Surgery. The Murphy operation is taught medical students but it is not carried out by the surgeon because of the usual contraction at site of union.

The method used by Walker was in 1899 published by Dorfler and is the method now universally used, the essential features being a continuous suture of fine silk with round needle that everts the edges and embraces all coats of the vessel.

Had Walker published his work, the pioneer work, he would have been credited father of modern blood vessel surgery. But the name of Murphy was too much.

The Matas operations for aneurisms are the outcome of the knowledge that the intima is the regenerating layer of the blood vessel, not the adventitia.

H. E. Randall.

#### MEDICINE VS. OSTEOPATHY

In the hearing on the Osteopath Bill the spokesman for this cult reiterated that "they had arrived" and that they were the equal of modern medical science and so were entitled to equal recognition because they were thoroughly educated. For their benefit and for the benefit of our members so that such claims may be refuted we publish the following comparative analysis prepared by the Council on Medical Education and Hospitals of the A. M. A.

April 11, 1927.

In the following statement is given a comparison of medical and osteopathic colleges based on the minimum standard of a medical college that

is considered worthy of approval by the Council on Medical Education and Hospitals of the American Medical Association. This standard is now met by all medical colleges and exceeded by many of them.

##### 1. Entrance Requirements

(a) Medical schools require, not only graduation from an accredited four year high school, but also the completion of two or more years of work in a college of arts and sciences that has been approved by the Association of American Universities, or by the Association of Colleges and Secondary Schools, of the district in which it is located.

(b) There is not one osteopathic college which requires more than a high school education, in some of the schools investigated, even the high school course was not required for all students admitted.

##### 2. Admission and Attendance

(a) Medical schools now require that the student must be in actual attendance in the college within the first week of each annual session and that the student attend all classes except for good cause, such as sickness, no credit to be given unless the attendance has been over 80 per cent of the full time.

(b) In all osteopathic colleges investigated a wide latitude is allowed for students being admitted and, in some, the students were allowed to enter at any time. No records in sufficient detail were found in the inspection whereby an 80 per cent attendance provision could be enforced.

##### 3. Supervision of Instruction

(a) Every medical school now has an efficient executive officer who sees to it that records are kept regarding students' credentials, attendance at classes, grades of courses and accounts of students, as well as any changes made in curriculum.

(b) In no osteopathic school were there records or other evidences showing that the students' work was supervised to an extent in any way comparable with medical schools.

##### 4. Curriculum

(a) In every approved medical college an announcement is issued each year setting forth each course by number subject, content, character, (lecture, recitation, laboratory or clinic); the length of time, where, and by whom given, and the amount of credit allowed.

(b) In no osteopathic college was such complete information given regarding the courses offered.

##### 5. Character of Instruction

(a) In all medical schools laboratory subjects are given, in reasonably uniform proportions of didactic and practical work and by teachers of unquestioned competence. In the clinical work also many patients are studied from all of the many types of diseases occurring among mankind and the students are drilled in the recognition of the different diseases and in the various efficient methods of treating each disease.

(b) In osteopathic schools inspected, certain courses, if taught at all, were entirely didactic, or if laboratory instruction was given, it was without the use of the essential and elaborate equipment now so commonly found in medical schools. Such instruction as was given with patients, was entirely from the osteopathic point of view and in none of these schools was there seen any attempt to teach the students regarding different types of diseases, all patients being



treated by the osteopathic form of manual manipulation.

#### 6. *Qualifications of Teachers*

(a) Every approved medical school now has from eight to twenty expert teachers having professional rank in the various laboratory subjects whose entire time is devoted to instruction and research. In addition there are from four to twelve full-time instructors or assistants distributed in the four main laboratory subjects of (1) Anatomy, (2) Physiology, (3) Pathology and Bacteriology and (4) Physiological Chemistry and Pharmacology.

(b) In osteopathic colleges not one teacher who, from previous experience or training, could be considered as expert, as deserving professional rank, or who was paid a sufficient salary to warrant his devoting his entire time to teaching and research.

#### 7. *Training of Teachers*

(a) In the medical schools the teachers with only an occasional exception have received a complete training in medicine and hold the M. D. degree. The few exceptions are teachers of laboratory subjects who have an A. B., B. S. or Ph. D. degree, and who have had special training or developed skill as teachers in the subjects to which they were assigned.

(b) In osteopathic schools, on the contrary, it is very seldom that a teacher is found who has obtained a medical training or who holds a degree in medicine. The few exceptions who hold M. D. degrees are graduates of low grade medical schools or who hold subordinate positions on the staff of the osteopathic school.

#### 8. *University Affiliation, Finances*

(a) All but a few medical schools are now medical departments of reputable universities and are controlled by the universities, both educationally and financially. All medical schools have incomes either from state appropriations or private endowments so that the actual instruction furnished costs from two to several times what the student pays in tuition fees.

(b) No osteopathic college is a department of a recognized university and all osteopathic schools have to depend for their maintenance entirely on the fees of students, plus other small sums as may be received indirectly through the teaching plant.

#### 9. *Teaching Hospitals*

(a) Every medical school now owns and controls a hospital or is in close affiliation with one in which the school has established an excellent routine of clinical instruction which provides its students with opportunities to examine and care for patients under the supervision of skilled physicians. The patients in the hospitals connected with these medical schools number from 150 to 500 or more each day and represents all types of diseases of which human beings are subject.

(b) In osteopathic colleges, such hospitals as are available care for comparatively small numbers of patients; students are seldom if ever admitted to the wards; in the inspection made, students have never been seen examining or caring for hospital patients and no courses of instruction with hospital patients have ever been noted in the published announcements of osteopathic schools.

#### 10. *Dispensaries or Outpatient Departments*

(a) All medical schools have dispensaries or outpatient departments with patients averaging from 60 to 200 or more daily and representing all types of diseases where students are taught by

physician-teachers who are specialists in medicine, obstetrics, surgery and other specialties.

(b) In osteopathic schools, no clinics were noted in which students were being given instruction in the many various types of diseases to which human mankind is subject. The only instruction being furnished to students was that patients coming to the clinics were placed on tables and where the osteopathic manipulation treatment was administered.

#### 11. *Library*

(a) Every medical school is now equipped with an elaborate and carefully selected library, including the various modern text-books and the valuable medical journals, and there was abundant evidence that these libraries were used by the students.

(b) No osteopathic college was found to have a library other than a few osteopathic books and possibly an osteopathic journal or two.

#### 12. *Museum*

(a) Every approved medical school now has a well equipped museum with normal, anatomical specimens and others showing the changes due to diseases.

(b) No osteopathic school was found to have a museum and no claim of such has been found in any of their printed announcements.

#### 13. *Postmortems*

(a) Students in every reputable medical school are now given instruction in connection with postmortem examinations where diagnoses made on patients who have subsequently died have been confirmed or corrected.

(b) In no osteopathic school have postmortems been noted or any instruction regarding them being furnished to the students.

#### 14. *Anatomy and Dissecting Material*

(a) Every medical school now has an extensive department of anatomy where enough cadavers are furnished to allow each student to dissect a lateral half of the body and under the supervision of teachers who are graduates of medical schools and have had subsequent experience in the teaching of human anatomy.

(b) In no osteopathic schools has there been found a department of anatomy or a dissecting room in any way comparable with that found in the lowest grade medical school. In only one osteopathic school was there found a teacher who had obtained a fair experience in dissection.

#### 15. *Operative Technique*

(a) In all medical schools a sufficient number of additional cadavers are available whereby students can be trained in the technique of various operations, such as amputations, ligation of arteries, etc.

(b) No osteopathic college was found which provided any such course nor has any such course been described in osteopathic announcements.

#### 16. *Animals*

(a) In every approved medical school animals are used extensively in demonstration and research work in connection with the teaching of physiology, pharmacology and bacteriology and a supply of animals is always available, including frogs, turtles, rabbits, guinea pigs and occasionally even cats and dogs.

(b) In the inspections made of osteopathic schools no evidence of such work has ever been found and no supply of animals has ever been seen.

### 17. *Special Apparatus*

(a) Every medical school is now provided with elaborate apparatus, such as stereopticons, charts, embryological models and roentgen ray apparatus whereby the modern and highly useful aids in recognizing and treating diseases are available.

(b) No such elaborate apparatus has been found in any one of the osteopathic schools.

### 18. *Published Lists of Students and Graduates*

(a) Every medical school now issues an annual announcement in which besides the lists of subjects taught contains a complete list of its students showing the classes in which they are enrolled, and also its latest list of the graduating class. Thus a list of the bona fide students enrolled in the school or graduated from it during any previous years is always available which prevents the appearance later of imposters who may claim to have taken such courses.

(b) The osteopathic school which openly publishes such records is an exception.

### 19. *Time Devoted to Medical and Osteopathic Instruction*

(a) The course for physicians now includes high school, 4 years; college, 2 to 4 years; medical school, 4 years and hospital internship, 1 year—total of at least 11 years.

### 20. *Claims Regarding Hours in the Curriculum*

No judgment in regard to the education furnished by osteopathic as compared with medical schools can be made on the basis of hours of instruction or subjects in which instruction is offered. Truth and scientific fact are not guaranteed by hours of instruction, but by the reliability of the subject matter taught and the qualifications of the instructors and their ability to impart knowledge.

In addition to what has been stated in previous paragraphs, there is still a question as to whether osteopathic theories are based on fact and thus far no reputable university has been willing to endorse osteopathy or to establish an osteopathic department.

### 21. *Equal Rights with Physicians*

In spite of the serious deficiencies of osteopathic colleges as compared with medical schools osteopaths are seeking the full rights and privileges as physicians. To have equal rights osteopaths should not be unwilling to secure the same professional and educational training as are now required of physicians. All that physicians are asking is for a square deal. Every one who is to be given legal authority to care for sick or injured people should be measured by the same standard of preliminary and professional education. Require that whoever is to practice the healing art shall be measured by the same standard; then grant him a license as a physician and let him use any method of treatment which his educated common sense may indicate.

Very truly yours,  
Council on Medical Education and  
Hospitals.

## MICHIGAN SOLDIERS HOME

By reason of the extended publicity given to conditions alleged to exist at the State Soldiers Home and the emphasis placed upon the statements of misinformed or disgruntled individuals we impart a

statement thereon. The Editor has personally corroborated these reports. By personal inspection we can attest to a most commendable medical administration system instituted by Dr. Dodge that supercedes all former professional services tendered to the inmates of the home.

Report of Conditions of the Hospital in July, 1924.

April 1, 1927.

Dr. Dodge  
Chief Surgeon,  
Michigan Soldiers' Home.

Dear Doctor:

On July 1, 1924 I entered the Michigan Soldiers' Home hospital as Second Assistant Surgeon, after I had passed the Kansas State Board of Medicine on October 9, 1923, and after I had spent a rotating internship in Blodgett Memorial hospital, Grand Rapids, under the Superintendents Doctors Munger and Morrill:

As I entered the Michigan Soldiers Home hospital, I found the following conditions in the hospital:

#### *Officers—*

Dr. Grube was Chief Surgeon and in charge of the hospital. Dr. Keffer was first assistant surgeon, and was ordered by the chief surgeon to do the daily calls at the companies, to take care of all women patients at the Annex and in the hospital, to hire the orderlies, and to instruct the night-orderlies that special attention was given to locking the iron gate in the basement leading to the storeroom for alcohol and medicines.

I was ordered to take care of all the men-patients in the hospital, to take care of the dressing room, and to help Miss Stoll, who did all compounding in the pharmacy, in making up the requisitions for the stockroom for medicines, dressing material, etc., every three months.

#### *Nurses Force—*

Supervisor of practical nurses was Mrs. Atwood. She was allowed 13 women helpers to do the practical nursing care. She was not allowed to hire more help.

#### *Orderlies—*

There were seven orderlies without any training. These orderlies were not considered high enough a grade as to associate with the women help.

#### *Number of Patients: (Men and Women in Hospital)—*

In my estimation there were 110 to 130 patients in the hospital in July, 1924. Ward C2 and ward B2 were not in use.

#### *Condition of Men-Patients—*

The sanitary conditions of the men-patients were poor. There were many bedsores which were not treated, because the help was not competent to treat them. Soiled bed clothes were washed in the bathtub, before they were sent to the laundry, because there were no slop-sinks available. The use of opiates for the relief of patients was high. Many patients kept powerful drugs like digitalis in their own possession, and treated themselves. Orderlies left the wards at any time to get mail, or to buy tobacco, or to entertain all over the hospital. As there were only 13 women helping the sick, each one being on eight hour duty, about 120 patients were during night taken care of by only



two untrained practical nurses, and two untrained orderlies. As I was talking over this matter with Dr. Grube, he told me that he was unable to obtain any more help, and that the State of Michigan could not afford to improve the sanitary conditions of the patients.

#### *Dressing Room—*

There was not one sterile sponge of gauze in the dressing room. I was told that the steam-sterilizer had not been used for about two years. I could find nobody who knew how to operate the steam-sterilizer. Dr. Grube told me to be very careful with the steam-sterilizer, because the same outfit had exploded in Milwaukee, and killed one person.

There were a few good knives, retractors, catheters, etc.; the hemostates were in no condition for surgical work.

#### *Pharmacy—*

All compounding was done by Miss Stoll, who has no certificate. No records were kept about the alcohol. Opiates were kept in the safe in the hospital office, to which only Dr. Grube had access.

#### *Laboratory—*

A small room on the third floor was provided for laboratory purposes; it contained two burettes, several test tubes, one test tube rack, two urinometers and one electrical centrifuge. Attachments like aluminum tubes, and centrifuge tubes were missing. There were no chemical solutions kept.

#### *Diet—Kitchen—*

Soft diets were prepared by Miss Harris in charge of a small kitchen on the third floor. There were no provisions available for the accurate calculating of diets as necessary for diabetic, nephritic, etc., diets.

#### *Medical records—*

There were no medical records kept.

Kindly interview Dr. Grube and Mrs. Atwood to substantiate my above statements.

Sincerely yours,

Arthur Mollman.

Report of the Hospital from July 1, 1924 to December 1, 1925.

April 1, 1927.

Dr. Dodge  
Chief Surgeon,  
Michigan Soldiers' Home.  
Dear Doctor:

In my previous report I described the conditions of the Michigan Soldiers' Home hospital, as I found them in July 1924. I wish to report the improvements installed in the hospital up to December 1, 1925.

#### *1. Operating Room—*

As it appeared impossible to obtain a modern sterilizing equipment, the old steam sterilizer again was put in use in August 1924. Working with comparatively low steam tension and much loss of time it has been used ever since regularly, covering the entire demand for sterile gauze, sponges, utensils, etc. in the hospital.

A few hemostates and general operating instruments were obtained from Lansing; catgut, silk, and silkworm sutures were kept in sterile solutions; gowns, sponges, etc., one hypodermoclysis equipment, and one anaesthesia stand were prepared so that the operating room could be used for emergency work.

#### *2. Dressing Room—*

Sterile sponges, cotton-balls, towels, aseptic solutions, etc. were placed on a dressing car. A few instruments, suture material, and an equipment for local anaesthesia were kept sterile. A stand for bladder irrigations, Buck's extensions, and wire gauze were prepared to meet the most necessary requirements for the routine dressings and minor operations for the patients of the Soldiers' Home.

As there was no trained help in the dressing room, I did most of the dressings personally. Among the minor operations performed I did several amputations of fingers and toes, carbuncle operations, tonsillectomies, submucous resections of the nose septum, sinus operations, intralaryngeal procedures, and removal of catheters which had torn off in the urethra. For the latter operations of course I had to use my own instruments.

#### *3. Pharmacy—*

As the remedies and pharmaceutical preparations were found in no order whatsoever, because the pharmacy was taken care of by untrained help, a pharmacological system was used to keep all remedies in proper place. Opiates were kept under separate lock and key; and Miss Stoll was instructed to keep this system. Many old and entirely useless remedies were condemned in presence of Dr. Grube. Several modern coal-tar preparations as Luminal, Allonal, Urethan, Paraldehyde, Adalin, etc. were added to the stock with the intention to decrease the use of opiates. On July 1, 1925 Mr. Metzger took charge of the pharmacy. He resigned August 31, 1925, because he was not registered. On October 3, 1925 Mr. W. J. Remus, registered pharmacist, took charge of the pharmacy.

#### *4. Laboratory—*

Chemical solutions were prepared, and kept for the routine qualitative urinalysis as for albumen, sugar, acetone, indican, bile, and urobilinogen; and for the routine quantitative urinalysis as for albumen, sugar, and chlorides. The electrical centrifuge was put in order, and the necessary attachments as aluminum tubes, and centrifuge tubes were bought by Dr. Grube. Chemical solutions were prepared for the analysis of gastric contents, of occult blood in the feces, for Gram's stain, Ziehl's stain, and Wright's stain, for blood counts etc. As there was no microscope in the hospital, Dr. Grube's private microscope had to be used.

#### *5. Diet—Kitchen—*

Miss Harris was instructed to do accurate calculating of diabetic and nephritic diets according to their protein-fat—and carbohydrate ratio. Only the metric system was used in diet calculating.

#### *6. Care of Patients on Wards—*

No improvement of the care of the sick could be expected, unless there was adequate help able to carry the orders given, and willing to take sufficient responsibility and interest in the care of the sick. Mrs. Atwood, supervisor of practical nurses, did certainly everything possible to raise the moral standing of her women helpers by discharging several women entirely unfit for the care of the sick, and by hiring new help. However, at the low salary given, no efficient help could be expected. Up to December, 1925, the number of practical nurses was increased to 16.

As I did my daily rounds, I found the patients' skin in reference to bedsores and bedbug bites in deplorable conditions; so I ordered immediate



medication to remedy the condition, but was not able to correct it entirely, as the help was not sufficient to keep the patients dry, and to turn them in order to relieve pressure. All my patients were given physical examination in as much as the diagnostic means available allowed. The practical nurses were instructed to take temperatures, pulse rates, whenever abnormal conditions were observed. Potent drugs kept in possession of the patients were taken away, and given to the practical nurses, so that they might dispense them personally. Opiates were strictly withdrawn from all veterans of the Spanish-American war. The withdrawal of opiates from the aged veterans of the Civil war was considered unsafe, and therefore not attempted. New admitted patients received opiates only in acute painful conditions, which could not be taken care of by coal-tar preparations. Whenever possible the use of morphine was replaced by the non habit forming codein. I made a special effort to keep patients, suffering from urinary disturbances, comfortable by frequent catheterization and bladder-irrigations, done by myself.

The necessity of washing soiled bed clothes in the bath tub could not be changed, because no slop-sinks could be obtained, and the hopper near the toilet is too small and too inconveniently placed to be used for that purpose. In order to meet this condition kerosene and sulphuric acid were ordered to be used to clean out the bathtubs after the soiled linen had been washed.

Kindly interview Dr. Grube, and Mrs. Atwood to substantiate my above statements.

Sincerely yours,

Arthur Mollman.

Report of the Hospital from December 1, 1925 to April 1, 1927.

April 1, 1927.

Dr. Dodge  
Chief Surgeon,  
Michigan Soldiers' Home.

Dear Doctor:

I wish to report the improvements installed in the hospital from December 1, 1925 to April 1, 1927, under your administration.

#### A. General improvements:

##### 1. Change of Hospital Regulations—

The regulations of the Walter Reed General hospital, Washington, D. C., were studied and adopted for the use of the Michigan Soldiers' Home hospital inasmuch as this by any means could be done. A copy of your general hospital orders is accompanying my report.

##### 2. Record system—

A complete system of medical records covering the history, physical examination, laboratory findings, and treatment of each patient in the hospital was installed in December 1925. As I checked up the medical records on January 1, 1927, there were 562 complete medical records written during the year 1926.

Daily ward reports for the immediate information of the surgeon in charge showing number of patients admitted, number of patients in critical condition, their temperatures, and pulse rates, the amount of morphine disbursed, and general condition of wards, to be signed by each nurse in charge on each eight hour shift, were ordered by Dr. Dodge. The use of order-books as a permanent record of all doctor's orders recording the exact date and time of the orders issued and executed were ordered by Dr. Dodge.

##### 3. Systematizing the Hospitalization of Patients—

Two receiving wards were installed on the lower floor of the hospital, one for men and one for women. The order was given to the office of the hospital that all newly admitted patients were to be assigned to these wards. Here they were examined and transferred to the different wards according to their physical condition.

A surgical ward was installed on the second floor, previously called six-bed ward, diabetic patients were grouped together so that they could be given attention in a more practical manner. A special room was fitted up on the second floor for patients seriously ill, where they could be taken care of constantly by special nurses. One of the first orders of Dr. Dodge was to move all orderlies and men-help who were occupying single rooms between wards to the fourth floor of the hospital, and to move all patients from the fourth floor to the third or first floor, in order to gain single rooms for patients, and to get rid of the constant disturbances of orderlies and men-help occupying single rooms between wards.

##### 4. Water and Food—

During the fall 1926 an acute endemic with diarrhoea, vomiting and general distress spread over the Soldiers' Home. Upon investigating this matter, the water supply for the Home was found to be badly contaminated with Coli Bacilli. Dr. Dodge immediately ordered that Arctic Spring water was to be used for drinking purposes on all wards. This condition of the water supply was unknown to Dr. Dodge and me, as according to all previous reports from the quartermaster and the chief engineer the water supply was supposed to be in excellent condition.

The feeding of the patients was regulated according to the professional standing orders of the three major hospitals of Grand Rapids; and the diets were divided into

1. Liquid diet without milk.
2. Liquid diet with milk.
3. Soft diet.
4. Light diet.
5. General diet and other diets were to be ordered specially.

#### B. Special improvements:

##### 1. Operating Room—

As there was no instrument sterilizer, Dr. Dodge carried his own electrical sterilizer from Big Rapids to the operating room of the Soldiers' Home, so that instruments could be sterilized before operation. As there were hardly any instruments, Dr. Dodge carried his own instruments from Big Rapids to the Soldiers' Home, in order to be enabled to do major operations. The stock of sterile sponges, towels, gowns, suture material and antiseptic solutions was considerably enlarged, and enabled Dr. Dodge to do operations such as amputations of limbs, breast amputations, appendectomies, gall bladder operations, hernia operations, skin grafting and transplantations, operations for varicose veins, and thyroid operations, which I have never seen previously done in this hospital. Up to January, 1927, Dr. Dodge always had to use his own instruments, then we received two Field Operating Sets from the Medical Supply Depot, Lansing. During same month a new instrument and utensil sterilizer was installed in the sterilizing room. The old, unsatisfactory steam-sterilizer for gauze, sponges, etc. has as yet never been replaced by a modern sterilizing equipment.

## 2. Surgical Dressing Room—

As the old dressing room on the first floor was considered unfit, the six-bed ward opposite the pharmacy was divided into two rooms; the one was designed as dressing room, and the other one as diathermia room. The new dressing room was equipped with a new utensil-sterilizer, with instrument sterilizer and gas plate, with a large hopper, with cup-boards large enough to keep sterile dressings, gowns, suture material, antiseptic solutions, anaesthesia outfit, etc. for emergency and accident work. A new beam-scale, an instrument cabinet, and a dressing-car were placed into the dressing room. As there were no instruments for cystoscopy, catheterization of the ureters, and rectoscopy, Dr. Dodge offered his own instruments for use.

According to the records there were done during January 1927, 345 dressings; during February 1927, 223 dressings, and during March 1927, 385 dressings.

## 3. Diathermy Equipment—

The west side of the six-bed ward was converted into a high-frequency department. From the Liebel-Flarsheim company an equipment was installed delivering Oudin-Tesla, and d'Arsonval currents. Ever since this installment the patients of the Soldiers' Home were treated for about six to eight hours daily for neuritis, arthritis, prostatic disturbances, lumbago, torcicollis, etc.

According to the records from February 1926 to March 8, 1927 195 separate patients were given 2,005 separate treatments, from 15 to 30 minutes each.

Into the north-west corner a dark-room was placed, as necessary for eye, ear, nose and throat-work.

## 4. Laboratory—

The previous pharmacy was converted into a laboratory by removal of several shelvings, and by installing a long laboratory desk just before the window from one wall to the other. Under the administration of Dr. Dodge the laboratory was greatly improved. A large research microscope from Zeiss, Germany, BCE5, with oil-immersion, fluorit-system, paraboloid-condensor and dark-field illuminator, furthermore a colorimeter of the plunger-type from Bausch and Lomb were purchased. New burettes, and bottles were requisitioned; and the stock of chemicals was much enlarged. To the routine qualitative analysis of urine were added stock solutions for the identification of reducing substances in the urine, as Barfoed's test, Soliwanoff's test, Phenylhydrazine test, etc. The quantitative urinalysis was improved by the use of Benedict's quantitative sugar test, and by the use of Volhard's indirect ammonium-sulphocyanide methods for chlorides. An equipment was prepared for blood chemical analysis, as for the nitrogen-non-protein, sugar, and creatinin determination. Solutions for bacteriological, hematological, and spinal fluid examinations were prepared.

Serological work and bacteriological work requiring culture methods were done by the Michigan State Laboratories in Lansing and Grand Rapids.

Every patient received a routine urinalysis; and all blood chemical work and quantitative urinalyses were done by me, as far as the time allowed me to do so; otherwise I had to send the specimen to the State Laboratories. At least 50 per cent of all the patients in the hospital received an examination for syphilis on the blood.

## 5. Pharmacy—

Upon the suggestions of W. J. Remus, pharmacist, a new pharmacy was installed in the former dressing room. Several new remedies and pharmaceutical preparations were added to the stock, such as Neo-salvarsan, mercurialized serum, Tetanus and Diphtheria antitoxin, Hemostatic serum, Cold serum, Digitan, Novasurol, Salyrgan, Pituitrin and Iron arsenite in ampules. Furthermore Atophan, Arsenoferratoze, Mercurochrom, Neo-silvol, Anaesthesin, and tablets Digitan and Digitora. The new pharmacy fully meets the requirements of the Soldiers' Home hospital.

## 6. Storerooms—

A second storeroom was installed in the basement for gauze, cotton, rubber goods and glassware.

## 7. Care of Patients on Wards—

A complete physical examination has been made the basis of all medical and surgical procedures. With Miss Van Regenmorter, supervisor of nurses, I personally checked the backs, feet, and toes of all bed-patients. By Miss Van Regenmorter the nurses force has been instructed by daily lessons, about how to bathe, how to take temperatures, how to take pulse-rates, and how to watch patients. She has certainly done everything possible to improve the care of the patients by instruction of the nurses themselves. I refer to a special report from her in this matter.

## 8. Publication—

In the Journal of the Michigan State Medical Society February 1927 an article about "Novasurol in the treatment of the Cardio-Renal Oedema" based upon our excellent results of this remedy on the aged patients of the Michigan Soldiers' Home has been published by Dr. Dodge, and myself.

Sincerely yours,

Arthur Mollman.

## NEEDED SAFEGUARDS IN THE PROMULGATION OF REGULATIONS UNDER THE NATIONAL PROHIBITION ACT AND THE HARRISON NARCOTIC ACT

The imposition of duties and prohibitions on the people through regulations promulgated by department heads, bureau chiefs and administrative boards acting under authority of congress, and not directly by acts of congress, seems to be a necessary outcome of the magnitude and complexity of our government. There is no reason, however, why the formulation and promulgation of such regulations should not be as public as are the deliberations of congress in the course of the enactment of a statute, nor why such regulations as are promulgated should not be published as widely and made as accessible as are such statutes as are enacted. In fact, publicity, publication, and accessibility are essential to intelligent co-operation between the department head, bureau



chief, or board promulgating a regulation and interested members of the community who must live under it, and are necessary to due execution and proper compliance.

Because of the absence of any statutory requirements as to the procedures to be followed with respect to these matters, the practices of various department heads, bureau chiefs, and boards varies, and the practice of a single department head, bureau chief, or board may vary from time to time. It seems desirable, therefore, that the entire situation be regulated by law, so as to promote uniformity and to hinder arbitrary and unwise action.

The same principles should doubtless apply to all regulations having the force and effect of law. Organized medicine, however, can hardly concern itself with such a broad field, but must properly limit its interests to the fields of particular interest to the medical profession, namely, the fields covered by the National Prohibition Act and the Harrison Narcotic Act. With a view to the proper control of the promulgation of regulations under the acts named and under similar acts, the following principles are suggested, for enactment into law:

1. Adequate public notice shall be given, and opportunity afforded interested parties to be heard, by brief or orally, before any regulation is promulgated.
2. Any regulation shall be officially published so as to inform the interested public of that fact.
3. A reasonable time shall be allowed after the promulgation of any regulation before it becomes effective.
4. Authentic copies of all regulations shall be available at all times to persons requesting them.
5. All regulations promulgated shall be officially reported to congress annually and be published in authentic form in the Statutes at Large or in some other proper, generally available form.
6. When congress first convenes after the enactment of the proposed law all regulations in force shall be officially reported to congress and shall be published in authentic form in the Statutes at Large in some proper and convenient form, so as to bring publication up to date.
7. To meet emergencies, the president may waive the time limits and proceedings normally required for the promulgation of regulations, so as to permit the promulgation immediately of regulations necessary to meet the situation, such regulations

to remain in force until regulations can be promulgated in due course.

I shall be glad to have any suggestions you are willing to offer with respect to this matter. If such legislation as is suggested above meets your approval, please let me know, so that the way can be better paved for its introduction when congress convenes in December next.

William C. Woodward,  
Executive Secretary, Bureau of  
Legal Medicine and Legislation.

#### REDUCE THE MORTALITY RATE OF CANCER IN MICHIGAN

It can be done. Early recognized and properly treated, a large percentage of otherwise fatal cases, can be cured. One hundred thousand people died of cancer in the United States last year. Some of these almost certainly were your patients, and it is likely that some of them were your friends or relatives. The Council feels that the full effort of the State Society organization should be put behind the movement to lessen the mortality of this disease. It is our moral obligation.

Dr. William H. Welsh of Baltimore says, "There was never a time when tuberculosis presented problems of such magnitude as the cancer question." Some day the mystery of cancer growth may be solved. Some day a curative, or even a prophalatic serum may be discovered, but today we know that we have in X-ray or radium or surgery a cure for cancer when that cancer is recognized sufficiently early. So let us take advantage of the knowledge we now possess, and in so doing save many lives.

We have, then, two distinct objectives:

First—To educate the public so that they may recognize those suspicious signals which suggest the possibility of cancer and early seek the advice of their physician.

Second—To educate the physician himself.

Statistics indicate but too clearly that the physician himself is often lax. This is shown by the length of time which will too frequently intervene between the patient's first visit to his doctor and the time when proper treatment is begun. It is probable that hurried history taking and a carelessness in examination are responsible in largest measure, but a lack of knowledge of diagnostic signs and failure to keep abreast of the newer methods of diagnosis, are responsible for the delay in



quite too many instances. The physician as well as the patient must keep constantly before him the danger signals which may mean cancer. They are:

Any sore that does not readily heal.

Any wart or mole that changes in color, size or appearance or if on any part of the body that is subject to chronic irritation, whether there be any change in color, size or appearance or not.

Any lump, especially in the breast.

Any irregular bleeding or discharge.

Indigestion that cannot be attributed to anything in particular.

Any irritation, particularly in the mouth. One of the certain things known about cancer is that, in a great majority of cases, irritation is a predisposing cause.

In case of doubt, and when you can, take out a piece of tissue and send it to the laboratory. Recognize the fact that certain tumors distinctly benign today, may be distinctly malignant day after tomorrow. The lump in the breast, the polyp in the bladder, must always be looked upon with suspicion.

Under the auspices of the Council, and with the co-operation of the American Society for the Prevention of Cancer, and its chairman for Michigan, Dr. Reuben Peterson, a "Cancer Week" is proposed May 9th to 14th. During this week it is urged that County Societies hold clinics under the title, "A Diagnostic Survey of Possible Cancer Cases." Your councilor will help you to plan a program of ethical publicity through the newspapers and public meetings which we hope will interest the people of your community. Such a survey is bound to save some lives in every community. Incidentally a grateful public will appreciate the efforts of your County Society in this attempt to control the ravages of this most dreaded disease.

B. R. Corbus.

## HOW TO CONDUCT A CANCER WEEK CAMPAIGN THROUGH NEWSPAPER PUBLICITY

HARRY C. SALTZSTEIN, M. D.

DETROIT, MICH.

During the past few years, publicity about cancer has become more and more widespread and general. The results are becoming increasingly evident. There is freer discussion of the nature and course of cancer; there is more general appreciation of the dangers of delay; and there is keener discernment of the early stages of the disease, both on the part of the laity and the profession.

However, human nature being as it is,

the facts concerned must be repeated and reiterated frequently. Only a fraction of the possible audience has as yet been reached, and as regards the possibilities of attainment through popular education, the surface only has thus far been scratched.

Consequently, the state wide campaign of cancer education, to be held during May 1927 under the auspices of the Michigan State Medical Society, will still fall on quite untilled soil.

Newspapers are just one vehicle of popular education. Radio, lectures, pamphlets, monthly magazines are all valuable and have been used. But 75 per cent of the people read only the newspapers. The remaining 25 per cent, who read periodicals, books, etc., also read the daily papers. Hence newspaper publicity has the possibility of reaching everyone—and with an economy of effort not possible with lectures, pamphlets, etc. (Radio is the newspaper's only rival, but the number of speeches that will be allowed on any one topic is always limited). For this reason, the cancer week campaigns in Detroit have concentrated upon newspaper copy, and the campaigns were shaped so as to conform as much as possible to the principles governing what is news.

The daily press are now quite alive to the cancer problem. They know that education is the only means known at present which has much likelihood of increasing our number of cures; they also appreciate that the public are increasingly interested in cancer and will read about it.

But, being commercial enterprises, and under the necessity of selling their papers, they will insist that the material submitted be "news", and that it be so fashioned that it is capable of holding the attention of the average newspaper reader.

To be news, something must be a drive, an issue, a fight, an argument.\* It must also have a local interest—a human interest if possible. People like to read about local happenings, about well known characters, something about which a fight of some sort is involved, or some unusual human happening. To cite a few illustrations: Of all the reasons offered for the continued success of "Abie's Irish Rose" perhaps the most plausible is that it is a fight from one end of the play to the other—and it is over a familiar topic—marital differences and unrest; of which what couple has not tasted? The war in China is news, for it concerns the greatest of all fights, but

\* The Practical Value of Newspaper Publicity in the Control of Cancer. Harry C. Saltzstein. J. A. M. A. July 31, 1926. Vol. 87, pp. 347-349.

when a few Americans are in danger, the headlines scream—it becomes of local color—maybe someone who lived near us, or knew someone we knew, was involved. Ty Cobb, apparently unjustly accused by the baseball “czar”—two well known personages, a fight, human sympathy for the “under dog,” all united to make that a front page story for several days.

Anyone can prove these and similar facts to his own satisfaction by taking up the evening paper and glancing through the news columns rapidly, then later noting which items attracted his attention and which he was interested enough in to read through. Unless he is a very unusual and outstanding person, those items involving a fight or argument of some fashion will attract most of his attention.

Cancer news, put in the form of a “drive”, a “cancer week”, wherein “all hospitals aim at cancer”, “Medics Fight Cancer”, etc., is a distinct aid toward reading interest and newspaper acceptability—a local happening with many persons involved, an underlying fight between hospitals vs. cancer.

A prominent person from a distance, coming to inaugurate this drive, is another element bringing in a personal encounter between some one well known and the dire scourge, and as such, is news.

The four cancer week campaigns in Detroit have been conducted in about the same way, bearing the above principles in mind. A date has been set for the “cancer diagnosis clinics”—five days during which all the hospitals will examine anyone who suspects they have cancer. The guest arrives the day before the opening of the clinics, for a series of speeches. The more prominent he is nationally and in the field of cancer treatment or research, the more successful will his talks be. For these speeches we have not been able to improve upon Dr. Bloodgood’s program for him laid down four years ago: a talk to reporters at 9 a. m.; a clinic to the medical profession at 10 a. m.; luncheon to a business men’s organization at 12:30; address to Women’s Clubs at 3 p. m.; address to the County Medical Society at 8:30. The strenuous “whirlwind” program in itself is an unusual element, therefore attracts publicity.

Before these events are to take place, everyone in the community must know that there is to be a “cancer week”. Also, since the slogan is “be examined if you suspect you have cancer”, everyone should know the warning signs of cancer before the clinics open. Furthermore, it is essen-

tial that they understand and remember what is told them, and that they are not alarmed at what they read.

Our advance publicity notices have been begun four to six weeks before the “week”. At first one to two items a week are published; during the last week a daily item if possible. The early notices are best placed in the Sunday edition—there is more space and readers have more leisure. These advance items must contain an introductory paragraph of local interest—a cancer week will take place on such and such a date—Dr. so and so will speak on this date—the Women’s Clubs are planning a luncheon, etc. Then, and generally only after such a local forecasting, will a bit of information about cancer be accepted. This again is only a reflection of human nature. The present war in China focuses interest, so that magazine articles and even entire issues are devoted to Chinese history, customs, commerce, etc.—material which otherwise would not be read. The visit of the Queen of Rumania to the United States unearthed a flood of information about that country which millions of Americans otherwise never would have had access to. After the announcement that some cancer meeting, etc., will or did happen, the average person is in an acceptable frame of mind for receiving brief information about the disease.

The information about cancer had best be given to the press systematically, remembering always that public interest cannot be held for very long, and the lesson must be made practical. A background of general knowledge of the disease, followed by specific descriptions of cancer’s early signs, with a general discussion of treatment methods, etc., is all that is necessary.

We have proceeded as follows: The first items contained statistics about the prevalence of cancer, its apparent increase, the increase in local deaths (readily obtained from the health department), its magnitude as a public health problem, etc. These facts are given not so much for their intrinsic value as to stimulate interest and make people want to read more next week. About a week or 10 days before the clinics open, an article or two on the nature, pathogenesis spread, etc., of cancer is printed. The very frequent start from chronic irritation, the spread from a local spot, the high chance of cure while still local, etc., are detailed. That we do not know its exact origin is stated, but more emphasis is given to the vast knowledge of



very practical value we do have, and authentic reports of high percentages of cures in early cases are repeatedly stressed. The drag of popular and even professional pessimism concerning the curability of cancer is immense, and cannot be overcome in one or two campaigns.

During the week before the clinics open, every effort is made to get as many facts about early symptoms of cancer before the public as possible. These must be very carefully written. It is better to use stereotyped material than trust to one's general impressions, unless the writer is quite familiar with the disease in its early stages. A story of stomach cancer describing an emaciated, vomiting and miserable old man, or one of breast cancer picturing a large ulcerating mass does not help anyone recognize the early stage, and paints a fearful picture which the newspapers do not like to print and which is contrary to the "message of hope" we are trying to instill. Controversial points and statistical arguments are avoided. What will make a possible victim recognize his cancer sooner and get proper treatment sooner is the only information valuable to the layman.

The American Society for Control of Cancer, 25 West 43rd street, New York City, N. Y., will supply needed guides and material, should these be desired.

This series of articles about symptoms had best be confined to full descriptions of early stages of the commoner cancers. We have condensed them into four special articles, of a column or one and one-half columns in length, divided as follows: 1, Breast and Tongue; 2, Lip and Bleeding (vaginal, rectal, etc.); 3, Gastric and Intestinal; 4, Skin and (briefly) proper methods of treatment. (See appendix).

This will bring the campaign up to the guest addresses. These should carry considerable space—it is the peak of the campaign as regards publicity, and it is well to have extra prepared items handy at this time, for after the opportunity is gone, not nearly as much will be printed. It is advisable, and in good taste, to have the guest issue a warning against quacks, serums, pastes, etc.—the noted specialist warns against these treatments, is the way the public will read it, and this is more forceful than similar information given out by the local medical society. His talks to profession and public should be very practical—discussion of early symptoms, possibilities of early removal, etc., and not completely taken up with phases of research

which might be more interesting for the moment. The press should be invited and given free access to all of his lectures.

Next day the free clinics open. All are admitted—it is a bargain day given by the doctors.

The different hospital staffs can easily organize for the examinations. A few men may be detailed to do all of them on alternate days, or, if a larger attendance is expected, they can be divided into sections, as skin, surgery, medicine and gynecology; or the entire out patient department do only cancer examinations for five days. (Fig. 1) Chart of examination.

#### CANCER CLINIC WEEK

February 17, 1927.

No. 3356

Providence Hospital

Name, Mrs. E. H.,

Address, 4244 Spring Street

Age, 60

Sex, F.

Race, W.—M.

What made you suspicious? Lump in left breast

Location of lesion, Left breast.

When first noted, Two years.

History, Two years ago noticed a lump on surface of left breast, never has been under treatment, nor has it been increasing in size.

Examination, Shows hard mass about  $3\frac{1}{2}$  inches in diameter in upper quadrant of left breast.

Previous treatment (give dates), None.

Diagnosis, Cancer of left breast.

Disposition of case, Referred to Dr. W. A. Harper, family physician.

R. Walker, Examining physician.

Please fill out and return to Secretary Cancer Committee:  
Wayne County Medical Society, 65 East High St.

Fig. I.

Record card used in examinations for cancer.

Naturally, everyone will want to know how many persons were examined and how many cancer or precancerous conditions were discovered. If a tabulation of these figures is compiled each afternoon, for the next morning's paper, (Fig. 2—tabulation sheet). They can be used as a frame work upon which to write additional articles on cancer. Various points can be re-emphasized; attention can be called to some lesson a certain case demonstrated; it can be repeated that the examinations are not general medical tests, but only for those who suspect they have cancer, and some knowledge of the disease is expected of all who apply, etc.

That is the end. The results of these hundreds of examinations are interesting material to analyze and this can be done without too much additional effort. They represent examinations of supposedly well persons—brought to the clinic before they might otherwise seek medical advice, and as such are an indication of one pertinent public health topic—how much unrecognized chronic illness there is in the community.



DAILY TABULATIONS CANCER CLINIC  
HARPER HOSPITAL, 1927

|  | Unsuspected and Untreated Growths |                    |                    |                    |                    |       |
|--|-----------------------------------|--------------------|--------------------|--------------------|--------------------|-------|
|  | Wed.<br>Feb.<br>16                | Thu.<br>Feb.<br>17 | Fri.<br>Feb.<br>18 | Sat.<br>Feb.<br>19 | Mon.<br>Feb.<br>21 | T'al  |
| Total admissions.....  | 85                                | 85                 | 132                | 127                | 223                | 652   |
| Total cases discovered (in-<br>cluding all tabulated be-<br>low).....                              | 22                                | 20                 | 35                 | 26                 | 38                 | 144   |
| Mouth—Positive cancer.....   | .....                             | 1                  | .....              | .....              | .....              | 1     |
| Doubtful cancer.....   | .....                             | .....              | .....              | .....              | .....              | ..... |
| Precancerous conditions.....   | .....                             | .....              | .....              | .....              | .....              | ..... |
| Chr. Irritation-Leukopla-<br>kia.....  | 1                                 | .....              | .....              | .....              | .....              | 1     |
| Benign tumors of mouth.....  | .....                             | .....              | .....              | .....              | .....              | ..... |
| Lip—Positive cancer.....   | .....                             | 1                  | .....              | .....              | 1                  | 2     |
| Doubtful cancer.....   | .....                             | .....              | .....              | .....              | .....              | ..... |
| Precancerous conditions,<br>Irritation fissure, Kera-<br>tosis Leukoplakia, be-<br>nign tumor..... | .....                             | .....              | 3                  | 1                  | 3                  | 7     |
| Breast—Positive cancer.....  | 1                                 | 1                  | 4                  | .....              | 4                  | 9     |
| Doubtful cancer.....   | 5                                 | 1                  | 7                  | 7                  | 13                 | 33    |
| Benign tumor.....  | 1                                 | 3                  | 2                  | 1                  | 2                  | 9     |
| Stomach—Positive Cancer.....   | .....                             | .....              | .....              | 1                  | .....              | 1     |
| Very suspicious indiges-<br>tion.....  | .....                             | .....              | 2                  | 4                  | .....              | 6     |
| Colon—Positive cancer.....   | .....                             | .....              | .....              | .....              | .....              | ..... |
| Very suspicious.....   | 3                                 | .....              | .....              | .....              | .....              | 3     |
| Rectum—Positive cancer.....  | .....                             | .....              | .....              | .....              | .....              | ..... |
| Very suspicious cancer.....  | .....                             | .....              | 1                  | .....              | .....              | 1     |
| Cervix Uteri—Positive can-<br>cer.....   | .....                             | .....              | .....              | .....              | .....              | ..... |
| Very suspicious cancer.....  | 5                                 | 7                  | 2                  | .....              | .....              | 18    |
| Fundus Uteri—Positive<br>cancer.....   | .....                             | .....              | .....              | .....              | .....              | ..... |
| Very suspicious cancer.....  | .....                             | .....              | .....              | .....              | .....              | ..... |
| Skin—Positive cancer.....  | .....                             | .....              | .....              | 2                  | .....              | 2     |
| Epithelioma.....   | .....                             | 3                  | 6                  | 7                  | 8                  | 24    |
| Senile keratosis.....  | 2                                 | .....              | 4                  | 2                  | .....              | 8     |
| Moles.....   | 3                                 | 3                  | 1                  | .....              | 4                  | 11    |
| Benign tumors (exclud-<br>ing sebaceous cysts).....  | .....                             | .....              | 1                  | .....              | 3                  | 4     |
| Other conditions—Cancer.....   | .....                             | .....              | .....              | .....              | .....              | ..... |
| Prostate.....  | 1                                 | .....              | 1                  | .....              | .....              | 2     |
| Fibro sarcoma of finger.....   | .....                             | .....              | .....              | 1                  | .....              | 1     |
| Cancer esophagus.....  | .....                             | .....              | 1                  | .....              | .....              | 1     |

Fig. II.

Tabulation sheet used for daily record of attendance and results of Cancer Week Clinics. These tabulations are of considerable publicity value.

Our experience has demonstrated that about the same sort of response is obtained each year. There will be innumerable skin cases, with a large number of epitheliomas, usually having had more or less treatment by salves and pastes. A like number of moles, some of them irritated or spreading, will be discovered. There will be a similar large number of breast conditions. Many of these are painful breasts—some with areas of chronic cystic mastitis, others with nothing palpable. Among them however will be scores of breast tumors—often requiring careful diagnostic differentiation. There will be a host of variegated indigestions, requiring further study for any definite diagnosis of malignancy.

There will be a few positive cancers of the cervix discovered among many pelvic lacerations and discharges, and many suspected pelvic conditions—fibroids, ovarian, tubal, etc., lesions.

Each year we have seen a few individuals who, after being told at the preceding annual cancer week clinic that they

had cancer, did nothing further until the cancer week the following year. This is an indication that a follow up system aiming to bring the positive cases under treatment is indicated. The local board of health, district nurses association, or hospital social service department may see the value of doing this work.

### DETROIT CANCER WEEK

In the Detroit Cancer Week Campaign February, 1927, the following four articles were submitted to the press for daily publication immediately preceding the opening of the "cancer diagnosis clinics" at all hospitals.

This is the first of four articles on cancer, prepared by Dr. Henry F. Vaughan, Health Commissioner and the Cancer committee of the Wayne County Medical Society. There were 1,008 deaths from cancer in Detroit in 1926. Much of this could be prevented by earlier treatment. The aim of this campaign is to recognize cancers within the first three months, preferably the first few weeks of their existence. It is only by an aroused and intelligently informed public opinion that this is possible. Discussion of cancer in this stage is not fearsome, and, as the articles show, can be quite interesting.

The warnings of cancer do not differ from the warnings of things that are not cancer. This must be understood by both the medical profession and the public. If people follow our recommendation and seek advice as soon as they become aware of any of these warnings, they will find that in a large number of cases the examination will show that the warnings are of things not serious, and which may not require treatment.

If, on the contrary, the examination shows that the warnings suggest future cancer or the early beginnings of cancer, then there is no doubt that these individuals, following the recommendation of the medical profession, will either be protected from cancer, or, if cancer has already started, will be cured in a large percentage of cases. The treatment will be devoid of danger and much discomfort, and will take but a short time.

### CANCER OF THE BREAST

The danger signal is a lump or tumor in the breast, especially after 25 to 40 years of age. If there is no lump, it is not cancer. There is no other danger signal whatever. There is no pain or feeling of ill-health. The one and only sign is the

lump. But not all lumps are cancer. If the patient reports immediately, there is high likelihood of curing the lump before it becomes the seat of cancer. Many of these so-called benign lumps or tumors later develop into cancer. After the age of 45 small lumps which show signs of growth should be examined. If this were always done, a large percentage of cases of cancer could be prevented.

The records of Johns Hopkins hospital give 70 per cent cures of cancer of the breast (higher in very early cases); in less early cases, only four to eight months longer duration, 20 per cent. In late cases, no cure. The life buoy is "seek medical advice at once." At once, means the next day, or certainly within the first three weeks after the lump is noticed. The warnings of danger are unmistakable. The way to meet it is equally so. There is one other sign which occurs in a small minority of cases, that is, any discharge from the nipple. Competent advice should be obtained at once. This is what every woman in middle life should know about cancer of the breast. The knowledge is definite, simple, not capable of any misinterpretation.

#### CANCER OF THE TONGUE

Well developed tongue and mouth cancer is very fatal. Only 12 per cent of the victims are cured. Most people, because they are uninformed, wait until the disease is far advanced. Yet cancer rarely develops inside the mouth except on the basis of an irritated, chronically insulted spot. These are easily eradicated, but most people will not consider these minor conditions of any significance unless definitely warned in some manner. "Teaching is more important than surgery" means that knowledge of these conditions is more important than treatment of the advanced disease.

Rough and dirty teeth and improperly fitting plates are the chief causes of these irritations. An ulcer may result, and if the irritation is not removed, and the ulcer persists, there is great likelihood of the development of a cancer. Any sore in the mouth which does not heal promptly, no matter what the original cause, should be carefully and repeatedly cleansed and protected from irritation. Pain, except in very slight degree, is usually absent. The small spot does not heal. It slowly grows both deeper and larger. Its edges are a little, but not very much, harder than the rest of the tongue. It is now cancer; early, favorable for complete removal, but no time to lose, for the spread is rapid. Small

warts and papillae sometimes start on the tongue or inside the cheek. They should all be removed.

#### A SMOKER'S "PATCH"

If tobacco irritates the mouth its use should be stopped. One form of irritation is the so-called smoker's patch—leukoplakia. This is a hard, shiny, white patch on the tongue, looking like enamel paint. It is firm and leathery. Leukoplakia may be due to other causes—constitutional disease or irritating teeth. But it can generally be made to disappear by hygiene and removal of the cause. Approximately one-third develop into cancer if not treated. If the patch splits, scales or ulcerates, it should be removed for it is dangerous.

Another form of smoker's cancer is caused by the irritation of the lower lip by a pipe with a stem so short that it is constantly irritating, if not burning, the lip.

The public is reminded again that there will be free clinics, admission to which is from 9 to 10 a. m., each morning February 16, 17, 18, 19 and 21st., at the following hospitals: Deaconess, Delray, Henry Ford, Grace, Harper, Highland Park, North End Clinic, Providence, Receiving, St. Joseph's, St. Mary's and Woman's. These clinics are not intended as general clinics for diagnosis of all diseases, but for consultation to those who suspect cancerous signs. The success of the clinics presupposes that the public have the information contained in these articles, the second of which will appear in this paper tomorrow.

This is the second of four articles on cancer, prepared by Dr. Henry F. Vaughan, Health Commissioner and the cancer committee of the Wayne County Medical Society. There were 1,008 deaths from cancer in Detroit in 1926. There are 300,000 cancer sufferers in the United States. The committee holds that much of this could be prevented by earlier treatment. The aim of this campaign is to recognize within the first three months, preferably the first few weeks of their existence. It is only by an aroused and intelligently informed public opinion that this is possible. Discussion of cancer in this stage is not fearsome, and, as the articles show, can be quite interesting.

Bleeding from the body orifices is a symptom which may indicate cancer. In discussing such bleeding, a few frank statements must be allowed. Any suddenly appearing bleeding, especially if irregular, persistent and painless, is highly suspicious and should demand a careful ex-



amination. Bleeding is one of cancer's favorite ways of starting, and when the "too late" stage is reached, it can always be ascertained that the patient has been warned for several months.

Of course all painless bleeding does not mean cancer. The ordinary nose bleed can be included in this description. But why not find out immediately, instead of disregarding the signal because it caused no pain?

#### RECTAL CANCERS

Rectal cancers generally start with bleeding. Only an examination can distinguish between piles and cancer. It is probable that the two have not very much in common. Cancer does not arise on the basis of hemorrhoids, but rectal irritations such as fissures, infected crypts, etc., may be the starting irritation of cancer at the anal margin. Cancer frequently starts an inch or two higher up. In these instances before the bleeding starts, there may be suddenly appearing constipation, or alternating attacks of diarrhoea and constipation. If an individual notices anything of this sort, especially if past 35 years of age, a careful examination should be had. **DON'T WAIT. FIND OUT.**

Every woman should know that if there is any bleeding which is not normal, its cause should be determined. There are four or five other conditions which she herself cannot differentiate, but a careful examination will tell. After the change of life has definitely passed, it cannot be too forcibly emphasized that there is no such thing in existence as a return of the change of life. It is very important to stress this point.

There is no part of the body where early cancer is so frequently missed through sheer ignorance of what women should know about their own functions. Excepting certain rare growths on the skin, cancer nowhere in the body has such terrors, yet nowhere is it capable of such easy and early diagnosis and nowhere are cures in early cases more favorable.

Bleeding from the bladder is not common, but may be very significant. Here, again, there may be a bladder or kidney stone, infection, a mild papilloma which can be removed by a simple electric treatment, or it may be painless beginning of a cancer. How to beat it? Find out. The patient frequently consults the doctor for pain due to extension of the growth to the spine months later, when, for anything at all to have been done for him, the first bleeding from the bladder should have been thoroughly investigated.

#### CANCER OF THE LIP

Nowhere is the association of chronic irritation and cancer so well shown as in the lip. Cancer almost invariably starts on the lower lip, almost invariably in those who have for long years smoked a short stem pipe (not cigars or cigarets) and almost invariably at the spot where the pipe is always held. It is the repeated mild burn of the pipe plus the irritation of the tobacco.

A small patch starts—a scab forms; this falls off, leaving a small open ulcer. Another scab forms, and every few days the process is repeated. If such a condition persists only a few weeks without healing completely it is dangerous. Smoking should be discontinued. Soon the edges become indurated and hard, the sore grows larger, scabs forming and dropping off every few days. It is now a cancer. It is early, and can be cured in 90 per cent of cases (Mayo clinic figures). A few months later the glands become involved, and there is only 18 per cent curability. Later still, just as cancer everywhere, no chance.

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This is the third of four special articles prepared by Dr. Henry F. Vaughan, health commissioner, and the cancer committee of the Wayne County Medical Society. The committee holds that an aroused and informed public attitude is the best force to combat the inroads of this disease. The recorded mortality from cancer has more than doubled in the last 40 years. It is now fourth in national causes of deaths, being exceeded only by pneumonia, cerebral hemorrhage and heart disease. These articles have been carefully approved and all are urged to read them.

#### STOMACH

"How do you feel?" In too many instances the answer is, "Not very well; I am troubled with indigestion."

Half of the people suffering from indigestion have some serious organic dis-



turbance. Indigestion is not a disease in itself, but a warning that something has gone wrong. It may be in the stomach, the intestinal tract, the gall bladder, liver, pancreas, or appendix. It may be in the nervous system or heart. It may be that faulty habits of eating or emotional disturbances have brought about disordered bodily conditions which may masquerade as indigestion. Because it is not thoroughly understood, men and women sometimes treat it lightly. So slight—yet, it may be the warning of serious disease. So slight—they go to the medicine cabinet and take their favorite remedy. So slight—yet by merely dulling the pain, not correcting the cause, they may be cutting many years from their lives.

Cancer of the stomach is responsible for one-half of all the deaths from cancer in men, and one-third of all the deaths of women who have cancer. Especially is it true that in the abdomen the warnings of cancer do not differ from the warnings of things that are not cancer. It is impossible to tell cancer indigestion from indigestion due to the variety of causes mentioned above without a thorough and painstaking examination.

Cancer in the stomach starts in two ways: Some on the basis of an old ulcer in the stomach (ulcer in the duodenum—the gut just past the outlet of the stomach—is never followed by cancer). Other cancers of the stomach start “out of a clear sky”, as a suddenly appearing indigestion in a person, usually past the age of 35, who has previously been perfectly well. There is rapid loss in weight.

The advice is thus two-fold: Do not let your stomach warn you year after year without having an adequate diagnosis and treatment. If it is ulcer of the stomach, it should be thoroughly treated, knowing that there is a certain small liability to cancerous change if the condition persists. If past 35, and of previous good health, you suddenly begin to feel discomfort or distress in the stomach or abdomen, with or without belching of gas, nausea or vomiting, even if not severe enough to be called real pain, you should be thoroughly examined, for the conditions may be serious; you may have cancer.

In two-thirds of the causes the definite continuous indigestion is preceded by vague rumblings of the impending trouble. For a few weeks, or months, there is aversion to certain foods (meat, milk, legumes, sweets); appetite may be keen for some viands, there may be marked aversion to others.

The examination for suspicious gastric distress should consist of careful history, physical examination, laboratory tests and X-ray examination. Persistent indigestion should no more be treated without an X-ray examination than should a broken foot be treated without an X-ray picture.

At present we cure few stomach cancers—a fact which has steeped both public and profession in pessimism. This is unwarranted, for even though the operation is formidable, and the disease rapidly spreads past the possibility of complete removal, cancer of the stomach is at the onset a local, removable disease just as surely as it is anywhere else in the body.

Exploratory operation must be advised, and accepted on well founded probabilities rather than wait for later certainty. The time for operation for gastric cancer is short—perhaps the first one to two months. As regards cure by surgery it is an acute disease. This is what is not realized, and is responsible for our pessimism and poor results.

As elsewhere in the body, cancer of the stomach follows repeated and long irritation. The stomach is a muscular, contracting bag lined with mucous membrane. When it contains food, it is in continual motion. If the food consists of hard lumps, instead of soft, well masticated material, there is bruising of the lining of the stomach and this bruising is most frequent at the outlet where the muscular walls of the organ are in most violent motion. As a matter of fact, most cancers of the stomach occur near the outlet.

A stomach previously rendered sensitive by irritating substances has, in the very nature of things, a lowered resistance. Examples of such substances are alcohol, highly seasoned food and tobacco. The excessive use of these agents may be accompanied by retardation of digestion and by the secretion of too much acid. Too hot foods are irritants. Badly cooked, or wrongly cooked foods make digestion difficult. Though no definite statement can be made, it is probable that excessive meats and sugar indulgence are frequently associated with an arrested condition of the blood circulation in the intestinal tract. Eat regularly; chew your food; don't crowd down an hour's worth of food in 15 minutes. Do not over eat—even if you can afford it.

#### BOWEL

The small bowel is practically immune from cancer. The large, or lower bowel, is a fairly common location of cancer. Though the disease may exist here a long

while unrecognized, the large bowel is peculiar in that, being a waste drain there is very meagre lymphatic absorption from it. Hence, since cancer spreads through the body by way of the lymphatic channels, the spread of cancer from the large bowel is slow. Though the operation is formidable, cures of cases of relatively long standing are accomplished.

As in the stomach, early symptoms are vague. Usually in a person past 40 years of age there may be attacks of lower abdominal distress or pain; associated with a sense of fullness or distention, and then loss in weight. Anything of this sort demands an examination and X-ray study. Any change in one's normal regularity, or the appearance of blood or mucous in the evacuations, is a danger sign.

Sudden and severe constipation; sudden and persistent diarrhea, which does not respond to ordinary treatment; or alternating attacks of constipation and diarrhea, are danger signs. Many diseases (ulcers, fissures, hemorrhoids, colitis, etc.) may cause symptoms like these, but cannot be differentiated from early cancer without a thorough examination. The examination should always include X-ray study. In the large bowel, X-ray study by means of an enema of an opaque mixture is efficient. Many bowel cancers are missed because this was not done.

Most persons with bowel cancer give a history of long continued, often mild constipation. But this is a history of bowel irritation. The cancers usually start at the bends or flexures of the gut, because of hard masses rubbing over these angles for many years. In our sedentary life, again, our food is too concentrated; there is too much sugar; we drink too little water; we develop indolent habits of bowel movement. Drink enough water; take enough exercise; add vegetable bulk to your food; train your bowels to regular habits, and more ills, besides cancer, may be avoided. But if there are signs of persistent disorder go today to your doctor. You may head off what is one of the greatest, if not the very greatest foe to life and health—cancer.

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sultation to those who suspect cancerous signs. The success of the clinics presupposes that the public have the information contained in these articles. Tomorrow: Skin cancer. Treatment of cancer in general.

The fourth and last article. Last year, there were numerous requests for further information about what to do with moles. The advice here given (in quotation) is that given by the American Society for Control of Cancer.

#### SKIN CANCERS

Cancers of the skin form a small group, but they are important, because if care is taken, almost all deaths from skin cancer can be prevented, and by relatively simple means. Most skin cancers remain purely local skin trouble, but the possibility of spread to internal organs is always present and is in itself good reason for not neglecting them.

Skin cancers sometimes start in the senile warts of elderly people. These senile keratoses, sailor's patches, weather patches, as they are variously called, begin as small brownish discolorations, usually on the face, but they are also frequent on the scalp, back, and back of hands. At times these discolorations become flat-topped roughness elevations, usually round. They may vary in color from yellowish, grayish brown to deep brown, and are often covered with a scale. This is the beginning of a cancer. The scab is usually pulled off by a towel or finger nail, or in some other accidental way, which causes bleeding; then another scab forms on the sore, which perhaps has meanwhile grown larger. The new scab may again be knocked or pulled off, and so on—the cancer all the while becoming larger. Sometimes it heals up entirely at one side, and advances at another.

Occasionally the cancer shows a tendency to rapid growth from the start, and forms a raised reddish cauliflower-like tumor which anyone at all concerned about his appearance will soon call to a physician's attention.

The slate colored purplish or blue black mole is often the beginning of a most malignant type of cancer, and one which grows very rapidly, spreading very easily to internal regions. This is especially true if the mole is located where it is subject to continued irritations, as from clothing, a belt, shaving, rubbing against the back of an automobile seat, etc.

The treatment of mole by "beauty doctors" or by the use of electricity or caus-



tics—methods which do not assure the complete removal of the deeper parts of the mole—are responsible for the start of some of the above growths. In these cases, traces of the original mole are left behind and because subject to constant irritation from the pull of the scar that is produced by the treatment.

"A brown or black mole should be left alone so long as it shows no signs of growth, or, if it is so defacing that its removal for cosmetic purposes is desired, it should be cut out by a surgeon. If it is removed, the resulting clear scar is usually less disfiguring than the mole, and the possibility of the malignant development of the mole is forever eliminated.

"In treating moles, the one guide should be thoroughness of removal. Any method which is capable of wholly removing or destroying them may be used by the physician. Cutting them out with a knife or a cautery blade does this effectively, and in most cases is the best method, but when the epithelioma is located near the eyelid or the tip of the nose, the deformity that would be produced by a good cutting operation may be so great that other methods of treatment may be considered. In such cases many surgeons prefer the use of radium or X-ray, or to employ the methods of cauterization or scraping. Those all give excellent results in the hands of experts."

We have been discussing lumps, ulcers, indigestion and irritation. Note again how little was said of pain. Pain generally means extension beyond the local and curable stage. We have not said much about loss of weight (except in discussing stomach cancers, and these should be discovered before loss of weight has advanced). Yet pain and emaciation are the pictures of cancer as you know the disease.

The early cases are not always so well known even to the physician, for frequently we do not see them. The responsibility of diagnosis in these early and borderline conditions is not light; but it is not yours. It belongs to your doctor.

The earlier the lesion, the harder diagnosis, but, in divert ratio, the easier and simpler is the cure. Let us have major diagnosis, minor treatment; instead of minor diagnosis, major treatment.

We have said very little about the treatment of cancer. That, again, is the responsibility of the doctors. It is often grave, but it is not yours. In general, surgery, radium and X-ray, sometimes certain forms of cautery, are the only

proven methods. The surgery must be experienced and anatomically precise; the radium and X-ray treatment similarly expert as regards type of growth and dosage.

To know the value of any new method it must be used in hundreds of cases and these cases followed from three to five years, then compared with the percentage of cures by standard methods. Beware of newly announced discoveries until they have been tried from three to five years, and draw no conclusions from one or a few cases treated by any method.

The stakes are too high. Remember that we have been discussing something which, if left alone, or improperly treated, is invariably fatal, and we have been talking of 60, 80 and 90 per cent cures.

Should any one wish further information, a pamphlet will be sent on application to the Wayne County Medical Society, Maccabees building, Detroit, or the American Society for Control of Cancer 25 W. 43 St., New York.

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### LEGISLATIVE ACTIVITIES

This session of our state legislature has witnessed the introduction of an unusually large number of bills pertaining to health and medical practice. It has been a very arduous and time consuming labor to remain abreast of these legislative activities, to secure and study each bill, to analyze their open and hidden purposes, to deduce how they may or do affect our profession, and to protect the doctors' interests. If one concludes that such supervision is not much of a job we invite him to come and try it.

We are imparting a brief synopsis of each bill:

In re: Senate Bill No. 156.

This is a bill to amend Act No. 338 of the Public Acts of 1917, and relates to the manufacture, sale, etc. of intoxicating liquors.

This bill, we understand, does not in any way affect the medical profession and was reported out of the committee on prohibition and placed on general orders March 17, 1927. It was amended before the Senate in very minor particulars and passed the Senate March 22, 1927.

In re: Senate Bill No. 13.

This is a bill to amend the title and various



sections of Part 2 Act No. 10 of the Public Acts of 1912, which is commonly known as the Workmen's Compensation Law.

This bill was introduced by Senator Pulver January 18, 1927 and referred to the Committee on Labor on the same day.

The interests of doctors are not affected by this act.

In re: House Bill No. 259.

This bill is a bill to amend Section 3 of Act 237 of the Public Acts of 1899 entitled, "An Act to provide for the examination, regulation, licensing and registration of Physicians and Surgeons and for the punishment of the offenders against this act and to repeal acts and parts of acts in conflict therewith, being Section 6726—2 Compiled Laws of Michigan 1915.

This bill is of very great length but the reason for that is because it was necessary to put into it all of Section 3 which is an exceedingly long section. The only change in the present law is as follows:

"But such revocation may be reconsidered by said board upon a showing by sworn petition signed by the applicant and setting up reasonable grounds for claiming that error had entered into the findings upon which the order of revocation was based; said petition shall be supported by the affidavit of at least one person of reputable standing in the same branch of the profession as the applicant, in the community in which the applicant may have been living for one year or more previous to the filing of said petition, and said petition shall be further supported by the affidavit of at least one person of reputable standing in the same branch of the profession as the applicant within the State of Michigan. At or before the filing of such petition for reconsideration of order of revocation the same shall be approved in writing by at least one member of the board."

This bill was introduced by Mr. Main and was referred to the Committee on Public Health on March 8, 1927. The bill has not been reported out of the committee. We talked to Mr. Main, the introducer of the bill, when in Lansing yesterday and Mr. Main stated that the purpose of the bill was to provide machinery for the Board to consider upon rehearing a petition of anyone coming under the act who has had his license revoked.

Mr. Main stated that a case had occurred in his district in which a person who had had his license revoked was refused a rehearing by the Board on the grounds that they had no machinery with which to carry on such a hearing. Mr. Main, before introducing his bill, sent a copy of it to the Secretary of the State Board of Medical Examiners and requested the Secretary to advise him of his suggestions in regard to the bill. Upon receiving no reply from the Secretary, Mr. Main introduced the bill in its present form.

For the convenience of the Board, we might suggest that the number of rehearings be limited so that the Board would not be pestered with unworthy petitions for numerous rehearings.

In re: House Bill No. 265.

This bill is a bill to provide for the examination, regulation, licensing and registration of chiropractors and to prescribe penalties for the violation of this Act. This bill is the regular biennial bill of the chiropractors to establish a Board of their own separate from the Board of Medical Examiners.

This bill was referred to the committee on Public Health on March 2, 1927. It has not been reported out April 15, 1927.

In re: House Bill No. 148.

This bill is a bill to amend various sections of a so-called Workmen's Compensation Law and particularly covers the proposed increase to be paid to the injured employee in case of an accident.

As reported, this bill does not in any way affect the medical profession.

This bill was introduced by Mr. Wade and referred to the Committee on Labor and a public hearing was held some time during the week of March 14th.

In re: House Bill No. 326.

This bill was introduced by Mr. Archie M. Reid, and purports to amend Act. No. 162 Public Acts 1903, being Sections 6740-6747—2 Compiled Laws of Michigan 1915, by adding thereto a new section called Section 2-A. This section reads as follows:

The State board of osteopathic registration and examinations shall from time to time adopt minimum standards of preliminary and medical education and no high school, academy, college, university or medical college or other institution or board shall be approved and designated, or its diploma or certificate be recognized by said board under this act unless in the judgment of the board it conforms with such standard.

This bill on March 16, 1927 was referred to the committee on Public Health.

In re: Senate Bill No. 241.

This is a bill to amend Section 3 of Act 237 Public Acts 1899 entitled, "An Act to provide for the examination, regulation, licensing and registration of Physicians and Surgeons and for the punishment of the offenders of this Act and to repeal Acts and parts of Acts in conflict therewith, being Section 6726—2 Compiled Laws of Michigan 1915.

This bill was introduced by Senator Gansser and was referred to the Committee on state affairs March 15, 1927. The bill has not been reported out of the Committee.

This bill is a bill to provide for the issuance of certificates to persons who served in the Military or Naval Forces of the United States during the World War who received an honorable discharge therefrom, and who have heretofore completed a course of training of at least three school years of six months each in legally incorporated college of Chiropractic under the jurisdiction of the Federal Board of Vocational training or similar Board or agency maintained by any state as part of a state program of Vocational rehabilitation for honorably discharged or disabled soldiers.

Dr. Kiefer, who had a long talk with Senator Gansser about this bill, told the writer that there were only about six of these soldier Chiropractors in Michigan and that his bill was only for the purpose of taking care of these men. Subsequent conferences with Senator Gansser has resulted in the practical withdrawal of the bill.

In re: Senate Bill No. 239.

This is a bill to provide for county health departments and to repeal Act No. 130 Public Acts 1917.

This bill was introduced by Senator Greene and referred to the committee on Public Health March 15, 1927.

This bill, we understand, is a bill which has the sanction of Dr. Guy L. Kiefer, Commissioner of Public Health.

In re: House Bill No. 307.

This bill is a bill to regulate the sale, possession and use of Clinical Thermometers, to define the standard clinical thermometers and to provide a penalty for the violation of this act.

This is new legislation and it is our understanding that the same is in accordance with the practice of the better manufacturers of clinical thermometers and is in no way detrimental to the medical profession.

This bill was introduced by Mr. Look and re-

ferred to the Committee on Public Health on March 15, 1927. The bill has not been reported out of the committee.

In re: House Bill No. 240.

This is a bill to amend the title and sections 2, 3, 4 and 7 Act 267 Public Acts 1915 entitled "An act to provide free hospital service and medical and surgical treatment for persons afflicted with a malady or deformity which can be benefitted by hospital treatment \* \* \* and prescribing the jurisdiction of the probate court in said cases."

This bill was introduced by Mr. Culver and referred to the Committee on Revision and Amendments of the Constitution March 3, 1927. The bill passed the House March 24, 1927 and was transmitted to the Senate and referred to the Committee on State Affairs March 25, 1927. We have not obtained a copy of this bill and therefore, are unable to give you a report of just how this bill amends the present law.

This law provides for the free hospital care of persons who are unable to pay for the same and provides that in certain cases, the Probate Court of the County where these people reside, may send them for treatment to the University of Michigan hospital at Ann Arbor, Michigan.

In re: Senate Bill No. 289

This is a bill to amend the title and sections 1, 2 and 8 Act No. 162 Public Acts 1903, entitled "An Act to regulate the practice of Osteopaths in the State of Michigan, to provide for the examination \* \* \* of Osteopathic practitioners \* \* \*."

This bill was introduced by Senator Wood and referred to the Committee on State Affairs March 29, 1927. See subsequent comment.

In re: Senate Bill No. 93.

This is the regular biennial appropriation bill for the Board of Registration of Medicine. It was referred to the Committee on Finance and Appropriations February 10, 1927. It has not been reported out of the Committee.

In re: Senate Bill No. 270.

This is a bill to provide for the regulation of Schools of Nursing and the examination, etc., of Nurses.

This bill was introduced by Senator Condon and referred to the Committee on State Affairs March 22, 1927.

In re: Senate Bill No. 285.

This is a bill to amend Sections 5 and 8 Act No. 267 Public Acts 1915 entitled "An Act to provide free hospital service and medical and surgical treatment for persons afflicted with a malady or deformity which can be benefitted by hospital treatment \* \* \* and prescribing the jurisdiction of the probate court in said cases."

This bill was introduced by Senator O'Connell and referred to the Committee on Public Health March 29, 1927.

In re: Senate Bill No. 288.

This is a bill to amend Section 8 Act No. 237 Public Acts 1899 entitled "An Act to provide for the examination \* \* \* of physicians and surgeons," being the Medical Practice Act so-called.

This bill was introduced by Senator Wood and referred to the Committee on State Affairs March 29, 1927.

The present law provides in part as follows: "Nor to osteopaths practicing under the provisions of Act No. 162 of the Public Acts of 1903." This bill would amend the present law so that this part would read as follows: "Nor to osteopathic physicians and surgeons or other practitioners practicing under or coming within the purview of Act 162 of the Public Acts of 1903."

It is rather difficult for us to state just what effect these words "or other practitioners practicing under or coming within the purview of Act No. 162 of the Public Acts of 1903" would have upon the present law. The words are of very general meaning and are not necessary to cover osteopathic physicians and surgeons practicing under the regulations set forth in the said Act No. 162. See subsequent comments.

In re: House Bill No. 129.

This bill is the regular biennial appropriation bill for the Board of Osteopathic Registration. It is nothing more than a pure appropriation bill.

It was referred to Committee on Public Health February 15, 1927 and passed the House March 21, 1927. It was transmitted to the Senate and referred to the Committee on State Affairs March 22, 1927.

From the above gist, but three bills called for the registering of strenuous protests: The Osteopathic and Chiropractic.

The Osteopaths sought to create a so-called new school of medicine, to create a new examining board and to give to all its licentiates the right to practice medicine, and surgery in all its branches and to create its own standards. It was a most vicious bill and if enacted would negative our present medical practice act. The bill was pushed with every influence and within a week was slated for hearing. This was the occasion for calling on our County Societies to file their protests. At the hearing, held on April 12th, the proponents made a divided and lame presentation of their case. Our society was well represented as also the Wayne County Society, Board of Registration, State Department of Health, and the University. Protests were voiced by Doctors Kiefer, Cabot, Jackson, Kelly, Bruce, Polozker, LeFevre and Warnshuis. By reason of the representation made, the remonstrances by County Societies, the interviews with the Senate Committeemen and other Senators we have every reason to believe that this bill will not be reported out.

The Chiropractic bill is the same old story of this cult coming up for a board and standard of its own. It was introduced in the House and was accorded a hearing on April 12th. Effective protests were filed but no extended arguments were made because in a canvass of the legislative situation it was decided that this bill could be best handled in the Senate if it ever reached that body.

In concluding this survey of legislative activities we cannot refrain from pointing out that your State Society has once more been alert in the protection of its members' interests and in this respect alone presents reasons for every doctor maintaining his affiliation.



# MONTHLY COMMENTS

Medical—Economic—Social

All members whose 1927 dues were not paid by April 1st, have been placed on the suspended list and the Journal discontinued. Re-instatement is obtained by payment of current dues to County Secretaries. A roster of all members in good standing will be mailed to members in the form of a supplement to the June Journal.

Please note the announcement of the program for our Annual Meeting and the Mackinac Island article contained in this issue. The completed program and all detailed information will appear in the June issue. Plan now to attend this meeting and make your hotel reservations now. See our advertising section for the Grand Hotel announcement.

We direct your attention to the editorial on legislation. If one has not noted the proceedings of our legislature he would in his complacency conclude that there was nothing doing in the way of medical legislation. Every one of these bills is fraught with dire potentialities. They affect every doctor. Your personal interests are involved. Your State Society is spending hours and days in dealing with these legislative questions and you, doctor, are the recipient of the benefits derived from the activity. It answers also what you are receiving as a membership benefit.

Dr. Kiefer, State Commissioner of Health, is monthly imparting valued information in the Public Health Section of your Journal. His requests, statements and reports concern all doctors. Our readers should manifest acute interest in these health activities.

Do not forget to bring your golf clubs, tennis racquets, bow and arrows, and your sport togs when you come to Mackinac Island. An arbitration committee will be appointed to settle all contest disputes. Yes, there will be dancing at night following the general sessions.

We especially commend to all our county units the articles on Cancer by Dr. Saltstein, published in this issue. The doctor has conducted effective campaigns in Detroit. His experience and advice will be of material assistance to other counties. Michigan should step into the van of this educational movement.

We fully intended to incorporate a rostra of members in good standing as a supplement to this issue. It was wholly impossible to compile the lists of paid members by counties, send these lists to County Secretaries for verification and prepare copy for the printer. This will be completed, however for the June issue.

Some 2,300 1927 membership certificates have been mailed to members whose dues have been received for the current year. We urge that it be displayed on the wall of your reception or consultation room. It is a distinct honor to belong

to your local unit of organized medicine and your patients have a right to know whether you do or not. Frame your certificate and hang it up.

To know much and to say little is sometimes appraised as an exemplification of wisdom. That may hold good in some instances but not in your County Society meetings. No, we don't mean to have a diarrhoea of words—that is not wisdom—but we do mean that when cases or papers are open for discussion that to not participate and impart from your knowledge and experience is far from wisdom. It is either due to laziness or selfishness. Such types of members are not desired. Join in the discussion and thus aid to intensify the value of your local meetings.

One of the underlying reasons that causes stagnation and limits progress is that so many medical men are concerned with the maintaining of traditions and are loath to relinquish these traditions for newer views that time in its progress demands. We live far too often in the past. We continue to do things as they always have been done and fail to perceive that modern events are not amendable to the precedents of the past. What is needed is vision for the future. Vision that will cause a revamping of past traditions and to adjust them to the present, while also retaining a flexibility that will adapt them to the future. In brief—get out of your rut, mingle with your fellows and let the memories of the past and its traditions serve solely as reflecting thoughts while you are on the stream fishing. When back in the harness, be up and at it in a modern way and cast aside tradition's dreams.

## OUR OPEN FORUM

Affording Opportunity for Personal Expression

Editor of The Journal:

Perhaps I am a little late but I do want to congratulate you on your editorial entitled "Whisky." You express my sentiments exactly. The article on "Last Illness of Washington," was great.

Faternally yours,

J. S. Morrison, M. D.

Editor of The Journal:

I wish to challenge two statements made in the address of Dr. Starkey, before the Detroit Neurological society and appearing in the April number of your Journal: First that the 18th amendment to the U. S. Constitution is the direct cause of the increase of crime and the disrespect for law. Before making so sweeping a statement on any subject one should take necessary pains to inform himself of the facts in the case. Rather



than use the necessary space to correct a statement so wide of the truth, I commend to him the book of Professor Irving Fisher, of Yale University, probably the best informed man in the country on the subject, entitled "Prohibition at Its Worst," where he will find his assertion completely refuted.

Second: That "The homicide rate is twice as great in states where the death penalty has been abolished as where retained." The fact is that the best thought of the people of Michigan has been concentrated upon the attempt to establish the death penalty, and the most cogent reason against such a law is the fact that it has miserably failed to deter homicide in those states still adhering to that relic of barbarism.

The aspersions he casts upon the "sob sisters" and the press, as well as attributing avarice to those attempting to bring about needed reforms, are in very poor taste and a cause for indignant resentment.

Yours for the truth,

E. D. Brooks.

Editor of The Journal:

Replying to yours of the 6th. S. & S. C. stock does not permit of a finer screen than 133, now being used to make your halftones. I have noticed the same discrepancy you speak of and have often been on the point of suggesting to you that some of the photographs from which we are asked to make cuts be retouched in order to get good results. This would have a far better effect than using a finer screen, although the cost would be a little bit higher. The charge for this work is \$3 per hour. So far I have seen very few photographs that require more than an hour's work.

If you will leave this to the writer, I will be glad to take the matter of retouching up with you any time we feel such a proceeding is necessary.

Very truly yours,

A. P. Johnson Company,

M. J. Tietema,  
Business Manager.

Editor of The Journal:

On page 278 in the April issue of the Journal appears an article entitled "Cancer of the Anus, Rectum and Colon," credited to Hirschman. I wrote the article which appeared as an editorial during cancer week in the Bulletin of the Wayne County Medical Society. Dr. Hirschman told me that it should be published in the Journal, and I suggested that if he wanted it published that he might send it, but certainly he gave you no reason to believe that he wrote it. This must be embarrassing to him, and undoubtedly a great many men in Detroit will be afforded considerable amusement over the situation. I am

Very truly yours,

E. G. Martin, M. D.

Doctor E. G. Martin,  
David Whitney Building,  
Detroit, Michigan.

My dear Martin:

Thanks awfully for your letter of April 9th. Hirschman did send me that clipping urging its

publication in the Journal and in the letter conveyed that it was from his pen, that is why I published it and so gave credit.

I am quite sorry that this occurred and I shall make amends for same in the next issue of the Journal.

Yours very truly,

Secretary-Editor.

Editor of The Journal:

Receipt is acknowledged of your letter dated March 17, 1927 together with a copy of a ruling made by Honorable W. W. Potter, Attorney General, regarding the registering by this office of osteopathic physicians to prescribe narcotics.

In reply you are advised that in this as in other cases this office will be governed by instructions received from the Commissioner of Internal Revenue. The information received is very much appreciated.

Respectfully,

Fred L. Woodworth,  
Collector.

D. A. McKillop,  
Chief, Miscellaneous Division.

Editor of The Journal:

Inasmuch as you have asked for some ideas for sporting events at the Annual Meeting, and due to the fact that Dr. Rubley of Monroe and myself are willing to meet all comers with the bow and arrows either against archers or golfers, I might suggest that an effort be made to see how many of the members are interested in archery and if there are a few who care to take their tackle to the Island. We could arrange a few stunts or contests among them. The thing Rubley and I like to do is play against golfers at their own game except that we shoot an arrow when they drive or putt a golf ball. We puncture a soft rubber ball four inches in diameter laid on the green instead of holing out as the golfer does. Allowances for sand traps are made in favor of the golfer. It makes a very good game.

I have been told that a number of physicians in Grand Rapids are archers, though I do not know who any of them are.

I will be glad to do any thing possible to help fill in an afternoon or morning during the time of the meeting, or help with plans before the meeting, as I imagine you have all you care to do with arranging the important parts of the program.

Yours truly,

R. G. B. Marsh, M. D.

Editor of The Journal:

Would you mind stating in your publication that we should be glad to supply a copy of the "Preliminary Report of the Commission on Medical Education" to any of your readers who may be interested in the general questions of medical education and practice. We should be glad to supply these copies without charge, and anyone desiring a copy of the report can obtain it by addressing, Commission on Medical Education, 215 Whitney Avenue, New Haven, Conn.

Sincerely yours,

W. C. Rappleye, M. D.

# NEWS AND ANNOUNCEMENTS

Thereby Forming Historical Records

D. E. G. Folsom of Mt. Clemens recently celebrated the fiftieth anniversary of practice. He has been health officer of Mt. Clemens for 35 years. The Journal tenders congratulations.

Post-Graduate Conferences were held in Bay City March 31st, Cadillac April 19th and Lansing April 26th. The fifth District Conference will be held in Grand Rapids, May 11th.

The A. M. A. will meet in Washington, D. C., the week of May 15th. Michigan should be well represented. President Coolidge will address the general session.

Governor Green announces the appointment of Doctors W. A. Lamire of Escanaba and E. S. Cruse of Iron Mountain to membership on the State Board of Registration in Medicine.

The Luce County Medical Society is a new unit in our State Society. Minutes of its organizational meeting will be found in the County Society news columns. Dr. H. E. Perry is president and Dr. J. T. Redwine is secretary.

On March 12th, 1927 Dr. Angus McLean gave a clinic and lecture to the students and faculty of the Ohio university at Iowa City, Iowa, the subject of lecture being: The "Relation of the State Toward Medical and Surgical Problems"—maintaining that medicine and the medical professional should be held independent of the state.

The next meeting of the Highland Park Physicians club will be held Thursday May 5, 1927 at the Highland Park General hospital.

Our past president Dr. G. Van Amber Brown is to give the paper of the evening. Subject: "The Developmentally Unfit Infant." This is to be illustrated with lantern slides.

The meeting starts at 8:30 p. m. sharp and the members of the Michigan State Medical Society are invited to attend.

The Highland Park Physicians' Club,  
Chas. J. Barone, Secretary.

Fifteen years ago next July Doctors A. O. and Eugene Hart organized a personal service partnership and purchased the building in this city which has become the St. Johns hospital. In 1917 Dr. F. E. Luton was admitted to the partnership, followed by Dr. Charles T. Foo a year later and since that time the firm name has been Doctors Hart, Hart, Luton & Foo. In 1927 another building was purchased for office purposes.

After the Clinton County Memorial hospital was assured the decision to abandon the St. Johns hospital was reached and the partnership has now been re-organized under the name of the Hart Clinic with Doctors T. Y. Ho and V. C. Abbott associated with the four members named above. As soon as the county institution is opened the St. Johns hospital will be closed. It will then be used partly for offices and partly for clinical work.

Announcement and schedules will soon be ready for the 1927 Summer Clinics of the Chicago Medical Society, supported by many of the largest hospitals in the city, among them being the Post-Graduate hospital, Chicago Memorial hospital, University of Illinois College of Medicine, Cook County hospital, Michael Reese hospital, Mercy hospital, Presbyterian hospital, Jackson Park hospital, St. Luke's hospital, Ravenswood hospital, Mount Sinai hospital, Francis Willard hospital, West Suburban hospital, Evangelical hospital, North Chicago hospital, Chicago Lying-in hospital, St. Joseph hospital, Alexian Brothers hospital, Laboratory of Surgical Technique, Washington Park hospital, Jackson Park hospital, Chicago Municipal Sanitarium, John B. Murphy hospital. Several of our large laboratories have also agreed to co-operate with us in this great work.

In 1926 we limited registrations to physicians living in Illinois, but our increased facilities make it possible to accommodate many more than last year. Reservations therefore will be open to physicians from other states and to as many as may be accommodated, in the order of their registrations. Registration fee will be \$10 for each two weeks course, payable at time of registration, and a physician may register for only one course of two weeks.

Admission will be by card only, issued by the Chicago Medical Society and no registration card will be issued until registration fee is paid.

The first two weeks course will begin on Monday, June 13, 1927, at 9 a. m., ending Friday, June 24.

The second two weeks course will begin on Monday, June 27 at 9 a. m., ending Friday, July 8.

This is an excellent opportunity for the medical men of the country to obtain real post graduate work in some of the best hospitals in the world, and from some of the best clinicians found anywhere.

Schedules will be sent to the 10,000 physicians in Illinois, and announcements will be sent to the American Medical Association, and the several state medical journals.

We will probably be unable to accommodate all those desiring this wonderful clinical course, so it behooves those in Chicago and Illinois to register early if they desire to take advantage of this year's summer clinics. Last year our registrations closed one week after the first announcement.

## DEATHS

Dr. Frank Banghart Walker, 60 years old, who had been a physician and surgeon in Detroit for the last 35 years, died at his home, 1130 Parker avenue, last night, after an illness of three days.

He was emeritus professor of surgery of the Detroit College of Medicine and Surgery, and was also associated with several Detroit hospitals and the Michigan State Hospital at Lapeer, Mich. He held the rank of lieutenant-colonel in the Medical Officers' Reserve Corps.

Dr. Walker enlisted in the United States Army in April, 1917. In June, 1917, he was commissioned a major and in August was ordered to the Rockefeller Institute for special service. In the same month he was ordered to join Base Hospital No. 36, at the Michigan State Fair Grounds. He served as chief surgeon of Base hospital No. 36 at Vittel, France, from November 17, 1917, to January 20, 1919. He was discharged March 2, 1919.

Dr. Walker was born at Hunter's Creek, near Lapeer, Mich. He was graduated from the Lapeer High school in 1883 and from the Flint, (Mich.) High school in 1885. He received his Ph. B. degree from the University of Michigan in 1890 and his M. D. degree from the Detroit College of Medicine in 1892. He was a fellow and one of the founders of the American College of Surgeons.

He began his career in Detroit with Dr. H. O. Walker, a relative. This association lasted until 1912, when the elder man died.

Dr. Walker was attending surgeon at the Providence hospital and consulting surgeon at the Shurly hospital, St. Joseph's Retreat and the Michigan State hospital. He was formerly associated with the Woman's hospital and the St. Mary's hospital.

He was a former president of the Detroit Academy of Surgery, the Detroit Surgical Society and the Wayne County Medical Society.

Other organizations:

He was a fellow of both the American Medical Association and the American College of Surgeons. In addition, he was a member of the Mississippi Valley Medical Association, the Tri-State Medical Society, the Detroit Surgical Society, the Detroit Medical Club and the Michigan State Medical Society.

Dr. Walker contributed numerous articles on surgery to American medical journals and served as editor of "Physician and Surgeon" from 1899 to 1903. He also was professor of surgery and secretary and treasurer of the Detroit College of Medicine from 1907 to 1913.

He was a member of Detroit Commandery No. 1, Knights Templar, Ionic Chapter; Corinthian Lodge No. 241, F. & A. M., and Moslem Shrine. He was a member of the Detroit Boat Club, the Detroit Athletic Club, the Bloomfield Hills Country Club, the Old Colony Club, the Detroit Curling Club and the Detroit Board of Commerce.

Dr. Walker was married in 1894 to Hattie Belle Venning at Monroe, Mich. She died in 1902. In 1905 he married Kate Huntington Jacobs of Detroit. Mrs. Walker, one son, Dr. Roger V. Walker, who was associated with his father; a daughter, Mrs. George M. Hawthorne; a sister and three grandchildren survive.

Funeral services were held in St. Paul's Episcopal Cathedral at 2 p. m. Thursday. The Rev. W. D. Maxon, rector of Christ Episcopal church, officiated. Burial was in Elmwood cemetery.

Dr. Lem. S. Barney, Constantine, died March 27, following a stroke of apoplexy. He was a graduate of a Baltimore university in 1898. Dr. Barney practiced for 23 years in Leonidas and in 1922 he moved to Constantine where he has

been practicing since that time. Dr. Barney was a member of the St. Joseph County Medical Society and the Michigan State Medical Society.

Dr. Moses Hyman, 4152 Woodward avenue, Detroit, died suddenly March 15th. Dr. Hyman was born in Detroit, graduated from the Western High school, and obtained his degree from the Detroit College of Medicine.

#### SERUM SENSITIZATION RESULTING FROM DIPHThERIA TOXIN-ANTITOXIN ADMINISTRATION

In order to determine the effectiveness of the 0.1 L+ diphtheria toxin-antitoxin preparation in rendering laboratory animals anaphylactic, experiments were conducted by Chester A. Stewart, Minneapolis (Journal A. M. A., April 16, 1927), on thirteen guinea-pigs. In a series of ten guinea-pigs who had received a single injection of 1 cc. of the 0.1 L+ toxin-antitoxin preparation and a second intraperitoneal injection of diphtheria antitoxin sixteen days later, nonfatal anaphylactic phenomena appeared in varying degrees of severity and after different intervals. In a second series of three guinea-pigs who had received three injections of 1 cc. each of toxin-antitoxin, prompt anaphylactic death occurred in two instances with convulsions and cessation of respiration. The third animal remained perfectly well. A clinical case is reported of the occurrence of a prompt severe reaction in a child previously immunized against diphtheria, following a subsequent injection of antitoxin fourteen months later. This is an example of human anaphylaxis. Diphtheria immunization without sensitization to serum, particularly that derived from horses, is desirable. Recent studies indicate that this end may be accomplished by the use either of antitoxin or of toxin detoxified by means of sodium ricinoleate. Until the effectiveness and relative merits of these two preparations have been fully established by extensive observation, the employment of toxin-antitoxin containing goat serum is recommended to avoid sensitizing individuals to the foreign protein (horse serum) present in the majority of the therapeutic serums at present on the market.

#### CASE OF COINCIDENT DIPHThERIA AND VINCENT'S ANGINA

Robb Spalding Spray, Morganton, W. Va. (Journal A. M. A., April 16, 1927), observed, in a patient's throat, a whitish, albuminous membrane. A swab was submitted to the city laboratory, where direct microscopic examination revealed myriads of spirochetes and fusiform bacilli. An immediate report of Vincent's angina was made. On the following day, however, the cultures showed a very profuse growth, almost in pure culture, of diphtheria bacilli of the slender, granular type.

#### CALCIUM CONTENT OF PUS

The work of Isidore Friesner and Samuel Rosen, New York (Journal A. M. A., April 16, 1927), demonstrates that there is an astonishingly close parallel between the amount of calcium in the pus from discharging of ears and the presence of suppurative bone disease. Possibly calcium determination of the pus, together with the quantitative determination of other constituents, may become a valuable aid in diagnosing the existence of a destruction of bone due to the suppuration.



# COUNTY SOCIETY ACTIVITY

Revealing Achievements and Recording Service

## POST-GRADUATE CONFERENCE

The 10th Councilor District Post Graduate Conference was conducted in Bay City on March 31st. The following program was presented:

- 1:00 p. m.—Open Remarks.  
—F. S. Baird, M. D., Councilor.
- 1:30 p. m.—Diagnostic Significance of Cardiac Pain.  
—William H. Marshall, M. D., Flint.
- 2:00 p. m.—X-Ray and Cancer.  
—T. Leucutia, M. D., Detroit.
- 2:30 p. m.—Obstetrics.  
—Reuben Peterson, M. D., Ann Arbor.
- 3:00 p. m.—Ear, Nose and Throat.  
—J. Milton Robb, M. D., Detroit.
- 3:30 p. m.—Use of Drugs in Gastro Intestinal Disease.  
—William H. Marshall, M. D., Flint.
- 4:00 p. m.—Cancer of the Uterus.  
—Reuben Peterson, M. D., Ann Arbor.
- 4:30 p. m.—Sinus Infections.  
—J. Milton Robb, M. D., Detroit.

Seventy-five doctors were present during the entire afternoon and expressed universal appreciation for the instructive discussions. The following doctors attended:

E. J. Dougher, Midland, Mich.  
E. A. Witter, Bay City, Mich.  
F. S. Baird, Bay City, Mich.  
W. A. Marshall, Flint, Mich.  
C. H. Baker, Bay City, Mich.  
A. O. Boulton, Gladwin, Mich.  
A. W. Herrick, Bay City, Mich.  
V. H. Dumond, Bay City, Mich.  
R. C. Perkins, Bay City, Mich.  
R. E. Scrafford, Bay City, Mich.  
H. M. Jardine, Omer, Mich.  
D. T. Smith, Omer, Mich.  
G. M. Brown, Bay City, Mich.  
J. W. Hauxhurst, Bay City, Mich.  
Reuben Petersen, Ann Arbor, Mich.  
C. A. Groomes, Bay City, Mich.  
C. M. Swantek, Bay City, Mich.  
Nina Ely, Bay City, Mich.  
C. W. Ash, Bay City, Mich.  
J. H. McEwan, Bay City, Mich.  
A. D. Allen, Bay City, Mich.  
Raye S. Everett, Bay City, Mich.  
L. F. Foster, Bay City, Mich.  
J. W. Gustin, Bay City, Mich.  
Maurer, Reese, Mich.  
J. McKenzie, Reese, Mich.  
H. P. Lawrence, Bay City, Mich.  
T. Leucutia, Detroit, Mich.  
J. W. Orth, Midland, Mich.  
W. G. Towsley, Midland, Mich.  
G. W. Moore, Bay City, Mich.  
M. R. Slattery, Bay City, Mich.  
E. S. Huckens, Bay City, Mich.

J. W. Weed, East Tawas, Mich.  
J. C. Grosjean, Bay City, Mich.  
Dan Weston, Akron, Mich.  
G. L. Alger, Saginaw, Mich.  
F. E. Parkinson, Saginaw, Mich.  
Frank E. Abbott, Sterling, Mich.  
E. F. Crummer, Essexville, Mich.  
C. A. Stewart, Bay City, Mich.  
E. C. Warren, Bay City, Mich.  
P. S. Windham, Saginaw, Mich.  
E. E. Curtis, Saginaw, Mich.  
A. J. Cortopassi, Saginaw, Mich.  
C. W. Ely, Saginaw, Mich.  
A. Grigg, Saginaw, Mich.  
Paul R. Urmston, Bay City, Mich.  
A. R. Ernst, Saginaw, Mich.  
B. B. Rowe, Saginaw, Mich.  
E. J. Person, Bay City, Mich.  
F. Sadowski, Bay City, Mich.  
C. E. Toshach, Saginaw, Mich.  
R. M. Kempton, Saginaw, Mich.  
R. Scott, Saginaw, Mich.  
W. H. Brock, Saginaw, Mich.  
W. F. English, Saginaw, Mich.  
R. N. Sherman, Bay City, Mich.  
T. A. Baird, Bay City, Mich.  
A. F. Stone, Bay City, Mich.  
V. L. Tupper, Bay City, Mich.  
W. K. Anderson, Saginaw, Mich.  
E. C. Hanson, Saginaw, Mich.  
J. H. Sherk, Midland, Mich.  
Fred Drummond, Kawkawlin, Mich.  
G. M. McDowell, Bay City, Mich.  
William Kerr, Bay City, Mich.  
R. H. Criswell, Bay City, Mich.  
J. M. Robb, Detroit, Mich.  
G. H. Kaven, Unionville, Mich.  
M. Kessler, Bay City, Mich.  
R. L. Fisher, Standish, Mich.  
F. J. Cady, Saginaw, Mich.  
Yntema, Saginaw, Mich.  
F. L. Busch, Bay City, Mich.  
C. F. Adams, Bay City, Mich.

The following program was given at the Post-Graduate Conference conducted in Cadillac on April 19th:

- 10:00 a. m.—Opening Statement.  
—Councilor Ricker.
- 10:30 a. m.—Test for Liver Function.  
—E. L. Eggleston, M. D., Battle Creek.
- 11:00 a. m.—Colloidal Iodine and Its Possible Uses in Medicine and Surgery.  
—W. L. Chandler, Ph. D., Michigan State College, Lansing.
- 11:30 a. m.—Some Animal Diseases Transmissible to Man.  
—Professor Ward Giltner, Michigan State College, Lansing.
- 12:15 M. —Luncheon.
- 1:30 p. m.—Disorders of the Colon.  
—E. L. Eggleston, M. D., Battle Creek.
- 2:00 p. m.—Prenatal Care.  
—H. S. Collisi, M. D., Grand Rapids.

- 2:30 p. m.—The Vermicidal Value of Iodine.  
—W. L. Chandler, Ph. D., Michigan State College, Lansing.
- 3:30 p. m.—Treatment of the Late Toxemias of Pregnancy.  
—H. S. Collisi, M. D., Grand Rapids.
- 4:00 p. m.—Treatment of Primary Anemia.  
—E. L. Eggleston, M. D., Battle Creek.

### POST GRADUATE CONFERENCE, LANSING, APRIL 26, 1927—HOTEL OLDS

#### PROGRAM

- 11:00 a. m. Opening Remarks.  
—B. F. Green, Councilor.
- 11:00 a. m. Treatment of Peptic Ulcer.  
—John B. Youmans, M. D., Ann Arbor.
- 11:30 a. m. Evaluation of Gastric X-Ray Report.  
—Preston M. Hickey, M. D., Ann Arbor.
- 12:00 M. Luncheon—Hotel Olds.
- 1:15 p. m. Newer Treatment of Pernicious Anemia.  
John B. Youmans, M. D., Ann Arbor.
- 1:45 p. m. Cancer of the Esophagus.  
Preston M. Hickey, M. D., Ann Arbor.
- 2:15 p. m. Fractures.  
—W. J. Cassidy, M. D., Detroit.
- 2:45 p. m. Preservation of Interuterine Life.  
—Alexander Campbell, M. D., Grand Rapids.
- 3:15 p. m. Acute Abdominal Conditions.  
—W. J. Cassidy, M. D., Detroit.

#### KENT COUNTY

The Kent County Medical Society met twice in March, both of which meetings were addressed by local members of the society. The following programs were rendered: "Abscess of the Tibia," John T. Hodgen, M. D.; "Pathology of Interest to the Practitioner," William McK. German, M. D.; "Nasal Ganglion Pain," C. F. Snapp, M. D.; "The Incidence of Mental and Nervous Diseases as a Causative Factor in Industrial Accidents," G. J. Stuart, M. D.; "The Attitude of the Medical Practitioner to the Laboratory," G. L. Bond, M. D.; and "A Fatal Case of Infection of Teeth and Tonsils, with Septic Infection," C. E. Sugg, M. D. and G. L. Bond, M. D.

The following resolution was adopted by the society which it is felt states the policy of the society relative to the attitude regarding free clinics; and the control of its membership. The resolution is:

1. The Kent County Medical Society through its members stands ready at all times to give free medical services to the needy. Their interpretation of the "needy" shall be not only the paupers but also those individuals who in the opinion of a trained social worker are worthy of that service.

2. That the Kent County Medical Society shall have through its Committee on Clinics a representative on the staff of every organization giving free Clinics service. So far as possible this repre-

sentative shall be chosen from such of its members who are at the time serving on Clinics.

3. That the president shall appoint at the beginning of his administration a committee of three to be known as the Standing Committee on Clinics. This committee shall designate its representative on the various clinics. These representatives together with the committee appointed by the president shall be known as the Conference Committee on Clinics.

4. We recommend: First that Clinic giving free service shall have a trained social investigator. Second that the records of their investigations shall be accessible to this committee at all times.

5. That this committee shall report from time to time the result of its investigations and make its recommendations to the society.

6. That the Kent County Medical Society is opposed to the plan that any patient of a free clinic shall pay more than a simple initial fee not to exceed 50 cents and not more than 20 per cent above cost of drugs and supplies.

7. The Kent County Medical Society is opposed to the acceptance by its members of any fee for attendance on free Clinics conducted on the plan as outlined in this report.

8. Realizing the difficulty of establishing an economic standard for free service the committee shall stand ready to co-operate with the social workers in arriving at an equitable and proper solution of these problems.

H. T. Clay, Secretary.

#### SAINT CLAIR COUNTY

Herewith are reports of several meetings of Saint Clair County Medical Society:

Regular meeting of Saint Clair County Medical Society, Hotel Harrington, Port Huron, Mich., on March 17, 1927. Supper at 6:30 p. m. Program at 8 p. m. Members present: Heavenrich, Clancy, Callery, Windham and Ryerson. Visitors: Doctors Price, Sykes and Meredith. Dr. Price, assistant to Dr. Hugo Freund of Detroit, read a very interesting paper on Cardiography. The paper was well received and a very interesting discussion followed its reading. A rising vote of thanks was extended the speaker for coming up from Detroit and giving the paper. Meeting adjourned at 9:30 p. m.

\* \* \*

Regular meeting of Saint Clair County Medical Society, Hotel Harrington, Port Huron, Mich., on April 7, 1927. Supper at 6:30 p. m. Program at 8:15 p. m. At the time President Ryerson called the meeting to order there were about 75 in attendance, approximately one-half of whom were graduate nurses of Port Huron and Sarnia, Ontario, the membership of the Saint Clair County Medical Society and about six physicians from Lambton County, Ontario, formed the remainder of the audience. Dr. Alexander Campbell of Grand Rapids read a very interesting paper on Pre-natal and Post-natal Care. Motion pictures taken in the Grand Rapids Clinic emphasized the various points brought out in the paper. Following the paper a very interesting discussion took place. A rising vote of thanks was given the speaker at the close of the program. Meeting adjourned at 10:15 p. m.

\* \* \*

A special meeting of Saint Clair County Medical Society was held April 10, 1927, at Port Huron hospital.

The matter of protesting passage of the several cult bills now pending before our legislature was taken up and several members pledged themselves to send night letters to Mr. Woodruff and Mr. Gillett. The society also authorized the several telegrams and letters written by the secretary to members of the legislature upon the same subject.

The society authorized the necessary travel expense for the secretary in attending the conference of County Secretaries at Jackson, Mich., on April 28, 1927. You are advised that the secretary of this society will be present at that meeting.

Mrs. James A. Attridge and Mrs. Richard K. Wheeler of Port Huron were appointed as a committee of two to organize the Auxiliary of the Michigan State Medical Society in Saint Clair County.

George M. Kesl, Secretary-Treasurer.

### TRI COUNTY

Dr. Smith, president, presiding.

Minutes of last meeting read and approved. Motion by Dr. Carrow, seconded by Dr. Ricker that annual dues be \$15. Carried.

This motion was made after some remarks as to the expense of the society, which have been paid largely by the Wexford county doctors participating in the County Poor Contract, as \$10 goes to the State Society.

Election of officers as follows:

President—J. M. Wardell. Motion by Dr. Gruber, seconded by Dr. Ricker. Carried.

Vice-President—Dr. J. Doudna. Motion by Dr. Ricker, seconded by Dr. Gruber. Carried.

Second Vice-President—Dr. O. Ricker. Motion by Dr. Gruber, seconded by Dr. Carrow. Carried.

Secretary and Treasurer—Dr. S. C. Moore. Motion by Dr. Ricker, seconded by Dr. Doudna. Carried.

Delegate to State Medical Meeting—Dr. W. J. Smith. Motion by Dr. Gruber, seconded by Dr. Doudna. Carried.

Alternate—Dr. Moore. Motion by Dr. Gruber, seconded by Dr. Doudna. Carried.

Medico-Legal Committee—Dr. Carrow. Motion by Dr. Ricker, seconded by Dr. Gruber. Carried.

Contract Committee—Dr. Wardell. Motion by Dr. Gruber, seconded by Dr. Ricker. Carried.

Program Committee—Secretary and Dr. Smith. Motion by Dr. Gruber, seconded by Dr. Ricker. Carried.

Finance Committee—Dr. G. D. Miller. Motion by Dr. Carrow, seconded by Dr. Gruber. Carried.

Meeting adjourned to Staff Room. Hospital reports for September 1925 and 1926 read and discussed.

Meeting adjourned.

S. C. Moore, Secretary.

### LUCE COUNTY

Inclosed you will find County Secretary's monthly report together with checks amounting to \$50 to pay the dues of the following members:

H. E. Perry, R. E. Spinks, F. P. Bohn, J. B. Christie and H. S. Stahr. On the list of members you will find also the names of R. E. L. Gibson, E. H. Campbell and J. T. Redwine. Doctors Gib-

son and Campbell have paid their dues for 1927, to the Mackinac, Luce and Chippewa Society. J. T. Redwine has paid his dues for 1927 to the Tuscola Medical Society, which makes according to the list inclosed, eight members to start with—all of whom are legally registered physicians in Michigan—except Dr. H. S. Stahr, who has only recently come to the State hospital from Nebraska and has made application to the State Board of Registration, in this state. He is a graduate of the University of Nebraska, receiving his diploma in 1924 and is also registered in Kansas and Colorado and it is only a matter of form in paying the fee to get his reciprocity here.

We would be glad to have you send a charter for Luce County Medical Society and a copy of by-laws for this society to adopt. Luce County Medical Society was organized on April 11, 1927, by the above named physicians.

Dr. E. H. Campbell, Medical Superintendent of Newberry State hospital acted as temporary chairman, at which time Dr. H. E. Perry was elected president. Dr. J. T. Redwine was elected secretary.

Trusting that the above explanation will make you understand why the dues were not all sent and that we may receive our charter with complete instruction, blanks, etc., that are needed, I am

Yours fraternally,

J. T. Redwine, Secretary.

### LENAWEE COUNTY

The March meeting of the Lenawee County Medical Society was held on Thursday, March 24, at the residence of F. J. McCue in Hudson.

The meeting was opened by President Hammel of Tecumseh. The minutes of the last meeting were read by the secretary and approved.

The Legislative Committee was instructed to proceed with their work of investigating the illegal practitioners in the county. A full report of their work will be given later.

A committee was appointed by the president to arrange a plan for the holding of regular clinics for the benefit of the needy poor of the county, these clinics to be conducted by the society members in the various community centers. Dr. C. H. Heffron of Adrian was made chairman, with Doctors McCue of Hudson, Westgate of Morenci, Lamley of Blissfield and Marsh of Tecumseh.

The speaker of the evening was Dr. Esli T. Morden of Adrian, who gave a very good paper entitled "The Business Man's Cold." He stressed the importance of attempting a rational treatment which will make it possible for the busy man or woman to continue at their work while recovering from an acute infection of the upper respiratory tract.

The paper was discussed by Doctors Stafford, Whitney, Howland and Chase.

R. G. B. Marsh, Secretary.

### BERRIEN COUNTY

The Berrien County Society held its March meeting at the Four Flags hotel in Niles.

Dr. George F. Dick of Chicago, who was to read the society a paper on Scarlet Fever Antitoxins and Toxins was unable to return from the Pacific coast in time to deliver the address himself but



sent his paper by aeroplane mail to his assistant, Dr. P. S. Rhoades. Dr. Rhoades presented the paper in a very able manner to a crowd of 110 people. There were many visiting physicians from Kalamazoo, South Bend and Cass county. Although keen disappointment was felt because of Dr. Dick's being unable to return in time, the paper and discussion were so well given by Dr. Rhoades that everybody was well satisfied and felt that the meeting was well worth while.

The personal physician to King Benjamin Purnell reports his condition as much improved, viz under the doctors care he is beginning to recover his former vigor. His interstitial pathology (viz nephritis) is improving.

Blossom week in Berrien county is May 1 to 7. The Berrien County Society invites you to come over and down and look us up. It makes a nice ride for the wife and family and the orchards in bloom are really worth seeing.

W. C. Ellett, M. D., Secretary.

### HILLSDALE COUNTY

A called meeting of the Hillsdale County Medical Society was held Tuesday evening, March 22 at 7 p. m., the president, Dr. H. C. Miller in the chair.

Minutes of the Annual meeting were read and approved.

Dr. B. F. Green read a very interesting and valuable report of a case of intersusception, with a brief resume of the statistics, diagnosis, prognosis and treatment of this condition.

Discussion opened by Dr. Bechtol and general discussion.

Dr. A. J. Hamilton then read his report of a case of syphilis with remarks on diagnosis and treatment. Dr. Hamilton's paper was most timely and instructive and was followed by general discussion opened by Dr. Johnson.

A resolution strongly favoring the proposed Tuberculosis Sanitarium at Ann Arbor was then offered and motion of Dr. B. F. Green seconded by Dr. G. R. Hanke was unanimously adopted. A copy to be mailed to State Senator Upjohn of Kalamazoo.

Adjourned.

D. W. Fenton, Secretary-Treasurer.

### HOUGHTON COUNTY

The regular monthly meeting of the Houghton County Medical Society was held at the Miso-waubik club, Calumet, Mich., April 5, 1927. Twelve members were present. Dr. A. C. Roche presented a paper on "Infantile Paralysis." Dr. H. M. Joy reported a case of a large Dermoid cyst of the abdomen in a woman with marked symptoms of toxic goitre.

The Houghton County Medical Society held its regular monthly meeting, March 1, 1927, at the Douglas House in Houghton. Meeting opened by Dr. M. D. Roberts. Dr. N. T. North of Painesdale read an interesting paper on the "Practice of Medicine in the Panama Canal Zone."

Dr. Scott presented a case of Vincents Angina. Meeting then adjourned to lunch.

Alex B. McNab, Secretary.

### EATON COUNTY

The March meeting of the Eaton County Medical Society was held at the Charlotte hotel March 31, 1927.

Dinner was served at 6:30 and followed by a short business meeting.

Dr. William Cassidy of Detroit then spoke on the "Surgical Abdomen." He avoided the common abdominal emergencies and spent about one hour on the uncommon and unusual abdominal surgical conditions, their diagnosis and surgical treatment. This was one of our banner programs and those absent missed a treat.

After a period of questions the meeting adjourned.

H. J. Prall, Secretary-Treasurer.

### GRATIOT-ISABELLA-CLARE COUNTY

For our March meeting we had Dr. Max Peet of the University hospital, who talked to us on the "Present Treatment of Cranial and Intra-Cranial Injuries." The doctor also showed a number of very interesting slides, illustrating his work on diseases of the pituitary. Altogether it was a very instructive program.

Dr. J. H. Powers, councilor of this district, was a visitor.

E. M. Highfield, Secretary.

## BOOK REVIEWS AND MISCELLANY

Offering Suggestions and Recommendations

**THE DISEASES OF INFANTS AND CHILDREN**—J. P. Crozer Griffith, M. D., Ph. D., Professor of Pediatrics in the Graduate School of Medicine of the University of Pennsylvania, and A. Graeme Mitchell, M. D., Professor of Pediatrics, College of Medicine, University of Cincinnati. Second Edition, Reset. Two octavo volumes totaling 1715 pages with 461 illustrations, including 20 plates in colors. Cloth, \$20 net. W. B. Saunders company, Philadelphia and London.

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**THE SURGICAL CLINICS OF NORTH AMERICA**—(Issued serially, one number every other month.) Volume 7, Number 1 (Cancer Number—February 1927.) 235 pages with 153 illustrations. Per clinic year (February 1927 to December 1927.) Paper, \$12; Cloth, \$16 net. W. B. Saunders company, Philadelphia and London.

**OBSTETRICS FOR NURSES**—Joseph B. DeLee, M. D., Professor of Obstetrics at the Northwestern University Medical School; Obstetrician to the Chicago Lying-In Hospital and Dispensary. New (8th) Edition, Revised. 12mo of 635 pages, with 266 illustrations. Cloth, \$3 net. W. B. Saunders company, Philadelphia and London.

**CLINICAL NEUROLOGY**—Hans Curschmann, By E. A. Strecker, M. D., and M. K. Meyers, M. D. Price \$3.50. 410 pages. P. Blakiston's Son & Co., Philadelphia.

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